

The Australian **COMMODORE & AMIGA** *Review*

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December 1992

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Editorial

We would like to extend a big welcome to our New Zealand readers, who now enjoy a regular delivery of *Commodore Review*.

Looking back at our December 1991 issue, things sure have changed. For the same as you paid for an Amiga 2000 back then, you now get an Amiga 2000 with 52Mb hard drive and Workbench 2. CDTV's are down from \$1499 to \$695. The Amiga 3000 has dropped around \$1000 and shortly we can all look forward to the new Advanced Graphics Architecture machines.

A high resolution, flicker free display in 256,000 colours from a palette of 16.7 million is bound to look pretty impressive. In this issue we preview the expected entry level AGA based Amiga, the new A1200, already launched in Europe for 399 pounds.

Desktop Video continues to grow, with many high end products appearing for fancy animation and graphics. Entry level users will be happy to know there is a solution suited to even the most basic of video equipment. *Video Director* allows you to edit your own home videos with little more than a camera and VCR. Check out the review inside.

As I'm writing this, our front cover is colour separating in the background whilst another file is being uploaded to the output bureau. There's no doubt the Amiga is a slick number when it comes to multitasking several programs, and Workbench 2.0 has made the user interface all the more pleasurable to use. I guess it's really the little things about Workbench that make the Amiga more fun to use - being able to edit your pointer, change the background pattern, alter colours or play your favourite song when you switch it on.

So, over the holidays, sit someone down and show them what the Amiga is all about. Tell them how much you enjoy using the machine most people think is nothing more than a toy.

Andrew Farrell

Merry Christmas and a happy New Year to all our readers from the staff at *The Australian Commodore and Amiga Review*.

Front cover: (C) Gavin Doek, Rendered using *Real 3D 1.4* (1500 x 2000 in 24-bit). Colour separated in *Professional Page 3.0*.

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eg Shadow of the Beast 3 (top game)	\$65
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"...the best program in show business." *Amiga Format (UK)*

"Scala MM200 is the kind of software that many serious users simply can't afford to be without." *Amiga Computing (UK)*

Scala MM200

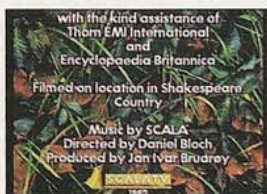
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SCALA
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UPDATE COLUMN

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There are no better Xmas presents for yourself or other Amiga users than the following great list of products.

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Wordworth - The definitive word processor

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Spelling Fair (7-13) - Basic spelling and grammar with essential fun elements and 3000 word dictionary

Merlin Maths (7-11) - Brilliant graphics and good fun for children as they learn from maths.

And, of course, a great range of Pactronics Amiga games

If your Amiga store does not have any of these, insist that they get them in for you, and if you want a full list of all our products please phone us on 748-4700.

Pactronics Pty Ltd, 98 Carnarvon St, Silverwater, NSW (02) 748 4700



Ram Rumbles

User Group Update

The Commodore Computer Users Group has had an exciting program of main meetings leading up to December '92, including demonstrations of the latest 24-bit graphics, MIDI and music plus a live word processor comparison test! (Better than a dead one ...)

Main meetings are held on the first Tuesday of each month at the Bardon Professional Development Centre, 390 Simpsons Rd, Bardon, Brisbane.

The December meeting will be a Xmas games special, with demonstrations of the best buys for the kids (or ourselves?) this year. A great series of meetings are being planned for 1993. The group also runs a BBS, regular SIG's including an active group of C64/C128 users. They have a monthly workshop where members can copy public domain software, including the latest Fred Fish disks, for FREE ... just bring your own disks. Enquiries to CCUG(Q) Inc, PO Box 274, Springwood, Qld 4127 or ring the secretary, Gordon Wright on (07) 299 7709.

The Brisbane Amiga Users Group aims to help Amiga users gain a better knowledge of their machines. Support is given in all areas of the Amiga, some of which is by way of a monthly magazine. The group also maintains a large library of public domain software, accessible to members for copying.

Meetings are held on the first Sunday of each month, except for January, in the hall behind the Polish Church, Cintra Rd, Bowen Hills. For further information contact the secretary, Ben Campbell on (07) 208 0629 or (07) 880 1136.

Amigas In Entertainment

Michal Mienil reports on a little snooping during the Rock 'n Roll Eisteddfod. As a student at Wirreanda High, the winning team no less, Michal managed a peek at the control room in the Adelaide Entertainment Centre during the finals.

Sitting proudly in control of the lights and sound (?) were two Amiga 2000s and matching 1084s. Not content with one sighting of Amigas, Michal also sent us details on an episode of *Murder She Wrote*. The episode in question was based around a computer wiz conducting computer lessons who encouraged his students to buy their own computers and modems. The wiz then dialed into his students' machines and stole information. An unlikely but remotely plausible idea, the show's credibility took a further dive when one of the A3000s involved had a hard disk crash. Now come on guys when was the last time ... Well, thanks for all those wonderful sightings Michal.

Amigas in Politics

Phil Collins of Mortdale reports on how he plans to use the Amiga for his next album cover as well as composing the ... only kidding. Jokes aside, Phil Collins does have a leg in the door at Queensland's Parliament House. He notes that a reliable inside source has discovered an Amiga 500 with genlock is used to title the video displays throughout the building. The displays show proceedings within, and the titles are produced on *Deluxe Paint III*. Thanks Phil for that sound report.

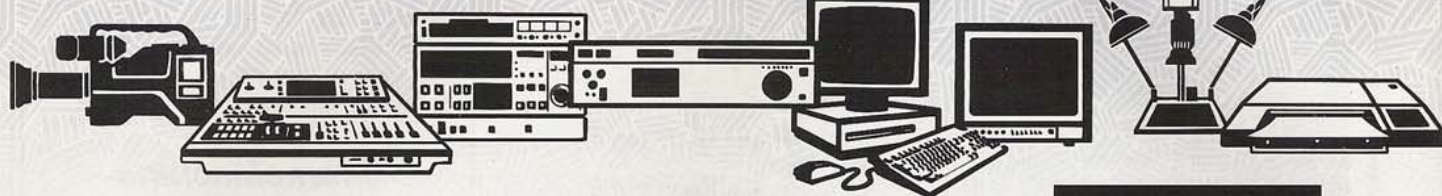
Amigas in Ginger Meggs

Steven Spink of Kooringal is an avid reader of the Sunday papers hefty cartoon section. In a recent strip Steven discovered an Amiga had snuck its way into the plot. Although we don't have space to reproduce the entire episode here, Ginger's mum did a fine job of recommending the "little Amiga" as a father's day gift. How about a big Amiga!

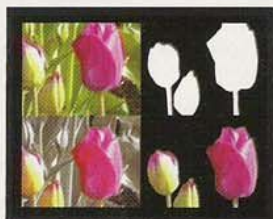
Thank you to everyone who contributed to Ram Rumbles this month. Keep those sightings rolling in!

Missing Link Found

The IV24™ Video Imaging System by GVP is your computer link to:



You have **only** 1 video slot in your Amiga®. **Only** GVP's IV24 makes sure you take maximum advantage of it. No other multi-function video enhancement



▲ Desktop Darkroom

peripheral links your Amiga to more video equipment, multi-media and other devices, boards and programs than GVP's IV24.

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GVP's bundled software is your link to creative imaging. There's absolutely no limit to your creativity, imaging and fun with



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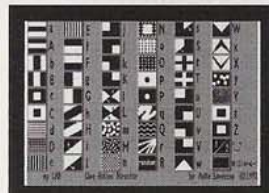
Desktop Darkroom™ brings the photo shop to your desktop with filters,

special effects and color separations capability from images captured by the IV24 and video camera, VCR, other video sources. Explore photography's future, today.

MyLAD™ (My Live Action Director) makes everyone a professional videographer with a 3 signal, 2-input switcher and 50 spectacular transitions.

New, enhanced Macropaint-IV24™ lets the artist in you truly express itself with 16.8 million color paint and image digitizing that shows your work in 24 bits — as you use it.

Plus, an easy-to-learn video titling system for your videos and multi-media presentations, as well as an introduction to the exciting world of 3-D modeling.



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The heart of every IV24 is the Video Interface Unit (VIU) with fully adjustable, software controlled, multiple video format capability for complete versatility and flexibility when it comes to video production signal compatibility. Choose:

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VIU-CT (Component Transcoder):

All the VIU-S features, plus RGB to Y/R-Y/B-Y and Y/R-Y/B-Y to RGB input and output conversions for Betacam/MII; VGA-style monitor passthrough.

What's your link to GVP's IV24? With the IV24, all the bundled software and your choice of VIUs, your links are endless.

"I found a link to creating great special effects on Nickelodeon's Nick Arcade..."

Karim Mitell Co., Producer, Nickelodeon Arcade, Bethesda/Productions, Orlando, FL
"I created 24-bit files from graphics to keep their colors intact. These images were captured by the Quantel Paintbox® from the IV24's analog RGB output. The Paintbox generated background then captured by the IV24 via RGB. The most telling testament to the board's quality is that the IV24 received the best response of all the Amiga-related devices I have shown broadcast engineers."



Graphic Courtesy of Nickelodeon

"I found a link to corporate presentations"

Bill Evans, Corporate Communications Technician, Fabmet Corp., Garden Grove, CA

"I use the IV24 mainly as a 24 bit display device in an A3000. I scan in 24 bit images with an Epson® 24 bit scanner, and then network them to a Video Toaster®. The finished product is displayed in our training room on two 27" Mitsubishi® monitors I will also use the IV24 with a Polaroid® freeze frame unit."

"I found a link to great animations..."

Tom Hutchison, Producer, Wild Orchid Graphics, City Rock, OR

"IV24 is what I've been waiting for. I use it with Imagine® software to produce animations for a local cable company. I really like being able to use one monitor and have a de-interlaced output that integrates into the system better than any other frame buffers I looked at."

"I found a link to a money-making opportunity..."

PAUL GILMAN, Entrepreneur (Scientist / Retired, Kodak), Personal Sports Cards, Penfield, NY

"I bought GVP's IV24 so my grandson and I can make and sell personalized baseball cards with Deluxe Paint®. The IV24 is the only product on the market with the RGB IN and OUT I needed to connect my video camera to a Kodak® thermal printer. It suits my needs perfectly. I've used many IV24 features — including Picture-In-Picture — and they're all superb."



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NOTEPAD

Top Chip

Black Knight Peripherals have released a graphics memory expander for Amiga 500 and Amiga 2000 - a two megabyte Chip RAM expansion board. Top Chip increases the graphics memory of the A500/A2000 machines to that of the A3000. According to Black Knight, the unit is the smallest Chip RAM expansion board available. The tiny size is important, particularly on the A500, where internal expansions are usually a tight fit.

Black Knight say the two other Chip RAM boards available on the market involve a messy installation routine. With Top Chip, there are no wires to solder to the computer's motherboard, no traces to cut and no jumpers to set. The unit will work whatever the current status of the motherboard regarding Chip RAM modifications.

Top Chip is designed and manufactured in Australia and has full local support. Top Chip comes with two Megabytes memory installed and has a recommended retail price of \$A269.00. The two megabyte Agnus chip is an extra \$A69.00. For further information contact Black Knight Peripherals on (02) 901 3624.

486SLC/25Mhz Golden Gate Bridgeboard

Fonhof Computer Supplies have stock of the new 486SLC/25Mhz Golden Gate Bridgeboard for the Amiga 2000/3000/4000 in Australia. This is the fastest Amiga Bridgeboard in the world with a RRP of \$A1,699.00. The Golden Gate 486SLC closes the gap between the Amiga's Zorro slots and the PC/AT (ISA) slots. ISA expansion cards like EGA/VGA graphics cards or LAN cards are accessible under MS-DOS.

Golden Gate 486SLC is a 25Mhz 80486 SLC PC/AT emulator for the Amiga 2000/3000 with integrated 16 mb RAM expansion. Golden Gate 486SLC further integrates a PC/AT IDE hard disk controller and optionally a PC/AT floppy

disk controller for HD floppy disk drives up to 2.88 mb.

Golden Gate's 486SLC CPU is compatible with the 486SX command set. Its 32 bit internal, 16 bit external data bus, its Cache with 1kb on chip and its 25Mhz clock frequency make the 486SLC CPU up to 2-4 times faster than a 25Mhz 386SX processor.

Two Mb RAM is already installed on Golden Gate's integrated PC/AT RAM expansion. Up to 16 mb RAM can be installed with standard 1 mb or 4 mb SIMMs. A maximum of 4 mb of this RAM can be configured as auto configuring Amiga RAM expansion. Golden Gate's IDE hard disk interface supports one PC/AT IDE hard disk under MS-DOS which can contain one AmigaDOS partition. Golden Gate works with Commodore compatible hard disks in the Zorro slot.

Golden Gate uses also the internal/external Amiga floppy disk drives in the MS-DOS formats 360 kb, 720 kb and 1.44 mb (only with an Amiga HD floppy disk drive).

If an optional 82077 floppy disk controller is installed, under MS-DOS up to three (two internal and one external) HD floppy disk drives in the MS-DOS formats 1.2 mb; 1.44 mb and 2.88 mb and under Amiga DOS up to two of these can be read, wrote and formatted.

Versions of MS-DOS from 3.2 to 5.0 as well as DR-DOS 5.0 and 6.0 have been tested. Windows 3.0 and 3.1 operate in the Protected Mode/Enhanced 386 Mode. Newly developed programs can use this memory as real program memory (EMS) Extended and (XMS) Expanded Memory.

On both Golden Gate 386SX and Golden Gate 486SLC an external connector for Vortex Monitor Master is integrated. Vortex Monitor Master is a small external box connecting an EGA/VGA graphics card and the Amiga video output both at the same time with just one Multisync monitor. The price of the 386sx/25Mhz Golden Gate Bridgeboard

for the Amiga 2000/3000/4000 has dropped near \$200 to a new low rrp of \$A999.00.

The 286/16Mhz ATonce-Plus PC Emulator for the Amiga 2000/5000 is still available at the same rrp of \$499.00. For more information contact Fonhof Computer Supplies on (02) 639 7718.

FrameMachine

Claimed to have all the features of OpalVision and more right now - CCS have announced availability of the new FrameMachine. Features include a double buffered (PAL overscan) 24 bit frame buffer, real time 24 bit frame grabber, digital video effects, genlock, picture in picture, time base corrector, video mixer, realtime scaling of incoming video, 1/4 screen (24 bit) and full screen (black and white) realtime record and play at 25 fps of 24 bit images, virtual memory support, AREXable, ADPRO supported, expansion ports, software and documentation.

The FrameMachine was released at the Cologne show in Germany during October. The hardware has been complete for some months now. It will be a thoroughly tested, fully featured product that when combined with products like Scala will make Quicktime on the Mac look like Quacktime. Contact Color Computer Systems on (09) 345 3343 for further information.

Software Updates

The ANSWER

GSoft have again upgraded the software for their Answer product. The hangup routine has again been improved and a HOLD function has now been incorporated that allows your Amiga to keep your callers amused while you attend to other business. Enquiries to GSoft on (08) 254 2261.

TurboPrint Professional

If you're looking to push your dot matrix printer further, check out this little utility. Much more than just a print driver, TurboPrint has been upgraded to TurboPrint Professional. The upgrade now allows much better control over the variables normally controlled by preferences. Upgrades are \$A30.00 from GSoft on (08) 254 2261. □

THINK ALL '040 ACCELERATORS ARE THE SAME?

THINK AGAIN!

As a high power Amiga® 3000/3000T user you need a 68040 accelerator board for one reason ... and one reason only ... SPEED!

And once you know what makes one 68040 accelerator better than another, the only board you'll want is the G-FORCE 040 from GVP.

WATCH OUT FOR SLOW DRAM BOTTLENECKS

Yes, all 68040 CPU's are created equal but this doesn't mean that all accelerator boards allow your A3000 to make the most of the 68040 CPU's incredible performance.

The A3000 was designed to work with low-cost, 80ns DRAM (memory) technology. As a result, anytime the '040 CPU accesses the A3000 motherboard, memory lots of CPU wait-states are introduced and all the reasons you bought your accelerator literally come to a screeching halt!

Not true for the G-FORCE 040...

SOLUTION: THE G-FORCE 040's FAST, 40ns, ON BOARD DRAM

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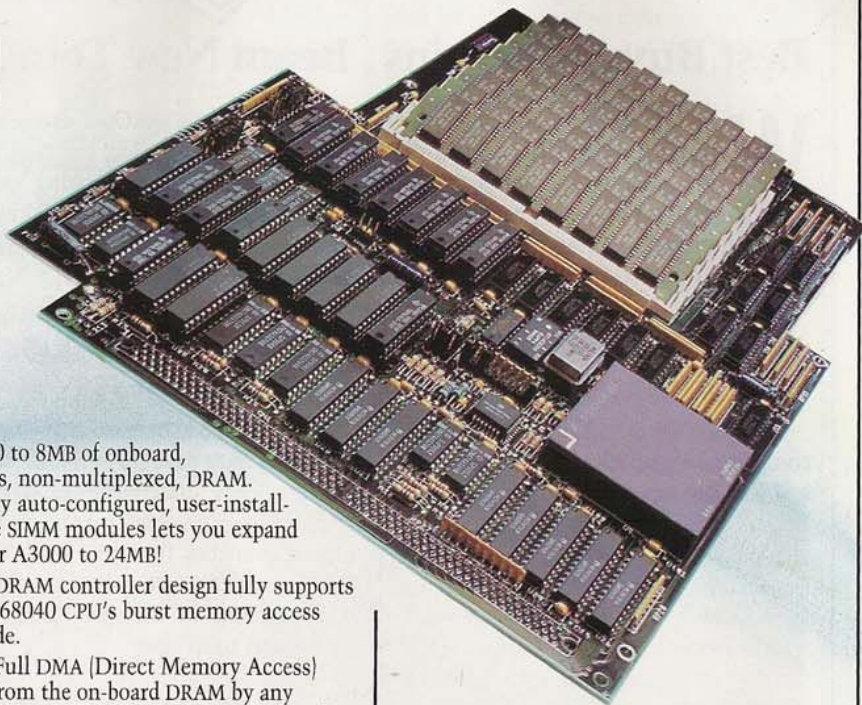
NOTE: The 68040 incorporates a CPU, MMU, FPU and separate 4KB data and instruction caches on a single chip.

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Christmas Shopping



Best Buys . Bargains . Beaut New Things

With so many new products turning up at the tail end of the year, we have not had room to write up everything. So here's a brief look at a few we missed, and a few old time good buys.

G-LockY/C Genlock for Under \$800

GVP are about to ship an impressive compact new genlock with both composited and Y/C support. The best part is, the G-Lock is software controllable. We've previewed the beta version and it looks pretty slick. Excellent value if you're looking to get into serious desktop video work with S-VHS or Hi-8 equipment.

OpalVision Around \$1200

Read the review in this issue! Plenty of stock is available. The artistically inclined will have hours of fun tinkering with Opal's many paint tools. Watch for

a regular column for Opal users in the near future. OpalVision can also play very impressive 24-bit looking animation. Why not grab a morphing program while you're at it and morph a few friends over the holidays?

Directory Opus About \$69

Still the best housekeeping utility around. A must have for every hard drive owner. Very configurable, it plays sounds, shows graphics, runs music modules, uncrunches files and much more. What it doesn't do you can quickly configure one of the spare gadgets to perform. A must have.

Scala Multimedia Under \$500

If you've got a machine with around 3Mb's of RAM (more is good), plenty of hard disk space, preferably 2Mbs of chip RAM and you're into making your own

Amiga presentations, movies or multimedia, you need *Scala*. This package is king of the castle in PC land when it comes to multimedia. Expandable, easy to use, with plenty of ready to use background. Top value, a potential money spinner too!

Morphplus Under \$350

You don't have to be an artist to use this package. If you've got some spare disk space, and the patience to set up a good morph (Michael Jackson style), *Morphplus* is all you need ... Expect to pay around \$349. Watch for a comparison of *Morphplus* and *Cinemorph* in our January issue.

Top Chip Under \$300

For the owner of a souped up A2000 looking for a way to take advantage of the new 2Mb Agnus chip, Top Chip could be the answer. At \$269 without the chip (Agnus is an extra \$69), you get double the graphics memory with room to run more applications, use bigger brushes, sample bigger sounds and much more. A worthwhile add on if you're not planning to upgrade to an A3000, 4000 or the new A1200 coming one day! □

Phil's Christmas Tips

If you're looking for a little entertainment in your Christmas stocking, I recommend you go no further than *Troddlers*. It's got all the charm of last year's hit *Lemmings* - cute little guys running round the screen in a panic while you try to get them out. This time though, all you can do is make or remove blocks.

The *Troddlers* walk up, down and sideways, following whatever path you lay out - it's trickier than it sounds, and packaged with superb graphics and a *Lemming* quality sound-track, it's a sure fire winner.

In a similarly entertaining vein, try asking Santa for a copy of *Baby Skweeks*. The challenge is to relocate

a bunch of cute little fuzz balls by waddling them round a maze to reach their colour coded base stations. Again, it's trickier than it sounds, it's graphically nice, and it's addictive.

Zool is definitely worth a place in your Xmas stocking. This little guy is a ninja imp you can take for a quick hack and slash around his liquorice and lollipop world. People are comparing the game play with classics like *Mario Bros* and *Sonic the Hedgehog*.

A word of warning - *Zool* is sponsored by ChupaChups so you will see plenty of their famous lollipops livening up the landscape.

On the racing scene there's plenty of choice - *Crazy Cars III*, *Jaguar XJ220*, and *Ayrton Senna's Super Monaco GP II* are all pretty hot. Go no

further than *Liverpool - The Computer Game* if you're looking for a good soccer sim.

If it's bargain entertainment you're looking for, check out the Megadisc PD Game pack. Ten full disks at just \$30 is good value in anyone's language. Check out *Operation Lemmings* on disk GA162. With pics and sounds grabbed from the original *Lemmings*, the game is perfect remedy for those pent up frustrations - simply line up the gunsights, and pick off the *Lemmings* as they wander across the screen.

There's an excellent up-to-date version of *Centipede* on another disk, and a batch of Llamasoft games like *Revenge of the Mutant Camels* on disk GA156. For more details phone Tim Strachan on (02) 959 3692. □

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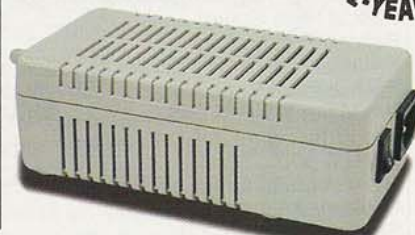
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Amiga 1200

Launched in Europe

Sneak Preview!

As predicted, Commodore have launched a new low end machine sporting the Advanced Graphics Architecture chip set.

SVGA resolution in 256 colours, with up to 256,000 in a new HAM mode (all from a palette of 16.7 million), coupled with a faster processor and good expandability make the A1200 Commodore's next big winner without a doubt!

According to Commodore, the A1200 is the most significant product released since the Amiga 500. The A1200 is seen as the A500 of the 90s. Commodore hope the A600 will be seen as an entry level home computer and the A1200 as a power machine for all home hobbyists.

The new A1200 is much more powerful than the A500 or A600. It is the first keyboard integrated machine with the AA chip set and a 32 bit processor. This will permit 256 colours from a palette of 16.8 million compared to the A500 and A600's 32 colours from a palette of 4096. This new chip set also supports an enhanced HAM mode allowing near photo realistic image in all

resolutions with up to 256,000 colours.

The new A1200 chip set will support VGA productivity screen (640 x 480 in 256 colours) at refresh rates up to 72khz interlaced. Sprite sizes have been increased from 16bit to 32 and 64 bits wide. Also sprites can be displayed in screen borders and have resolutions independent of play fields. The A1200 will come with two megabytes of chip RAM, thus chip RAM expansion is not needed.

Processing Power

Under the bonnet is a true 32 bit system, with 32 bit RAM, and ROM using the 14Mhz (2 x A500/A600) clock speed 32 bit 68E020 processor. This processor not only runs at twice the speed of the A500/A600 but also has a 256 byte instruction cache. These capabilities enable the A1200 to achieve performance that is up to five times that of the A500/A600.

The hardware is packaged in a new style case, similar to the A600, but will support the addition of a numeric keypad. There's also room for an internal 2.5" IDE hard drive, as in the A600HD.

Expansion

Commodore have retained the PCMCIA card port for memory and I/O expansion, but added a 32 bit processor bus expansion port accessible via a door on the bottom of the unit. This port is similar to the A500 expansion port, but is not compatible.

The reasons are simple - the port has been enhanced to 32 bits and 14Mhz operation. Cards and adaptors likely to ship include: Accelerator processors,

DSP Processors (16-bit sound and CPU coprocessor), SCSI Adapters, Fast RAM expansion and Bridge Cards.

Boards added to the expansion bus can have external cable connector access via a rear panel knock out. With the new package, AA chip set, better expansion and high speed 32 bit processor, the A1200 is a very exciting and competitive product.

Software

The new A1200s will ship with Amiga DOS 3.0, a backward compatible extension to 2.x which provides full support for the new chip set enhanced graphics, and may be "localised" for over 14 countries and languages.

All this means that we have without doubt the most power home computer in the world even after competitors' recent launches. With the increase in colour depth and screen resolution combined with Amiga's graphics performance, the A1200 will provide better video performance than 386 based systems - at a better price.

Conclusions

Let's have it! Will Commodore Australia ship the A1200 this Christmas? Well, it could be a real life saver for the specialist dealers who are currently battling with falling 386 and 486 prices. However, regardless of when the A1200 turns up, Commodore have a big winner on their hands. Expected retail price, based on the UK retail price of 399 pounds, is under the \$1000 mark. The market has never been more ready for a machine like this. □

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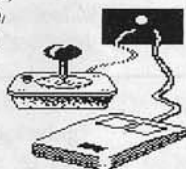
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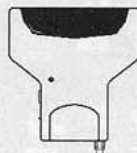
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SCALA Masters. *competition*

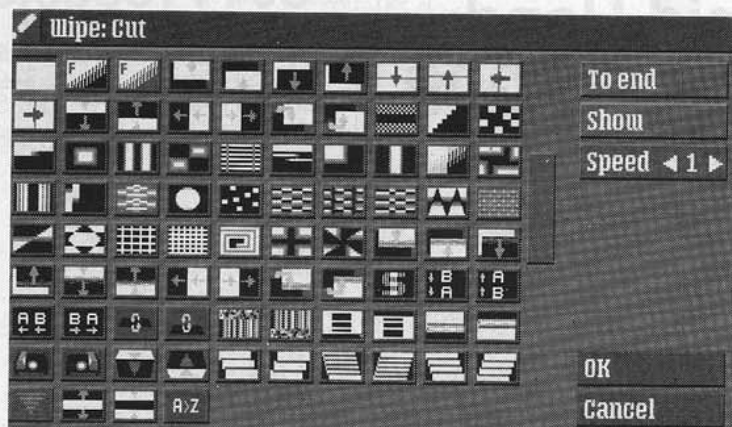
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OpalVision

Today - 24 Bit Painting ...Tomorrow - Framegrabber, Video Mixing, Genlock, Digital Video Effects

by Andrew Farrell

How do you describe a product which mows the lawn today, but with a couple of plug in options coming soon, will do your whole garden? Stuck for a name? How about a 16 million colour display card which allows serious painting, animation and presentation power today, but with a few plug in modules, does your whole video production?

How about OpalVision, from Opal Technology of course. A plug in card, slightly shorter and trimmer than most, OpalVision also includes a paint program, presentation software, a game, two manuals and one of the hottest pieces of packaging you'll ever see.

Opal Technology are developing plug in modules including a video switcher, genlock, framegrabber and digital video effects "Roaster" chip. The first of these will arrive within the next six months.

Installation

Getting the card up and running is pretty straightforward. Plug it into your A2000/3000/4000's spare expansion slot, connect your RGB monitor to the new video out connector and ... hang on, where's the picture? The manual mentions a tuning screw. I found the smallest screw driver I have, performed Houdini impersonations trying to access the screw and started turning.

Now here's a little tip. Don't stop turning until it works. I almost gave up, when suddenly the display stood to attention and the test pattern took on

the crisp clean look I was expecting.

Included with the software is an impressive collection of 24-bit images, scanned into the Amiga using a Sharp JX-300 scanner from high quality Superchrome prints, some taken by a skilled *Penthouse* photographer. Images and software install simply using Commodore's new Installer program.

Up and Running

OpalPaint, OpalVision's own paint program, was developed locally and stands as a proud achievement in the Amiga world. It would certainly be the most affordable program of its kind. It way out-performs the likes of *Macropaint*, bundled with GVP's IV-24.

Many of the program functions are modelled on *Deluxe Paint*. Whilst this makes learning the software quicker, it can lead to some misleading assumptions. For starters, in 24-bit land your backgrounds are rarely one colour, so the days of cutting a brush out of colour zero are gone.

OpalPaint uses *Deluxe Paint*'s familiar hot keys, however the menu system is completely different. There are no pull-down options and the tool bar is located across the bottom part of the screen. However, using the right mouse button to invoke tool options is likely to pop up a far more complex window than *Deluxe Paint*.

Colour control is also quite different, with most functions using HSV (Hue, Saturation and Value) rather than

RGB sliders. Once you get used to it, it's a far better system.

File Requesters

OpalPaint has separate Load and Save buttons, each of which open a file requester which users of top end graphics workstations will immediately warm to. Apart from the usual file list, *OpalPaint* also maintains thumb prints of each saved image and these are presented as part of the requester. To Load a previous image, just double click the thumb print. *OpalPaint* is filled with these kinds of touches. Truly a professional software package. More of the same please.

Drawing Tools

Above the Load and Save buttons is a familiar line of drawing tools, much the same as *Deluxe Paint*. A magic wand, which is not currently implemented, is one unfamiliar button. It fills an area of varying shades of one colour and automatically detects the edge. Stay tuned for the next release!

Selecting the tool options pops up a non-draggable window called the Area Fill Menu. From here you define how fill tools will function. There are no similarities to *Deluxe Paint* here. The fill options are Solid, Gradient or Brush Wrap and work globally. Adjust one tool and all others will work the same way.

Solid Fills can be applied over a selected paper texture. Gradient Fill works beautifully. You can build a selection of colours into the gradient, using a gradient box. The fill can be previewed in your selected direction, either horizontal, vertical, contour, user-defined, radial, and user defined radial. You can also specify a transparency gradient, which overlays the fill. Using this option you can for example make a gradient filled circle with soft edges in one fell swoop. Brush Wrap fills an area with a brush with optional warping (or bulging) from 0-100%. A forthcoming upgrade will support up to eight sets of defined gradients in memory at one time.



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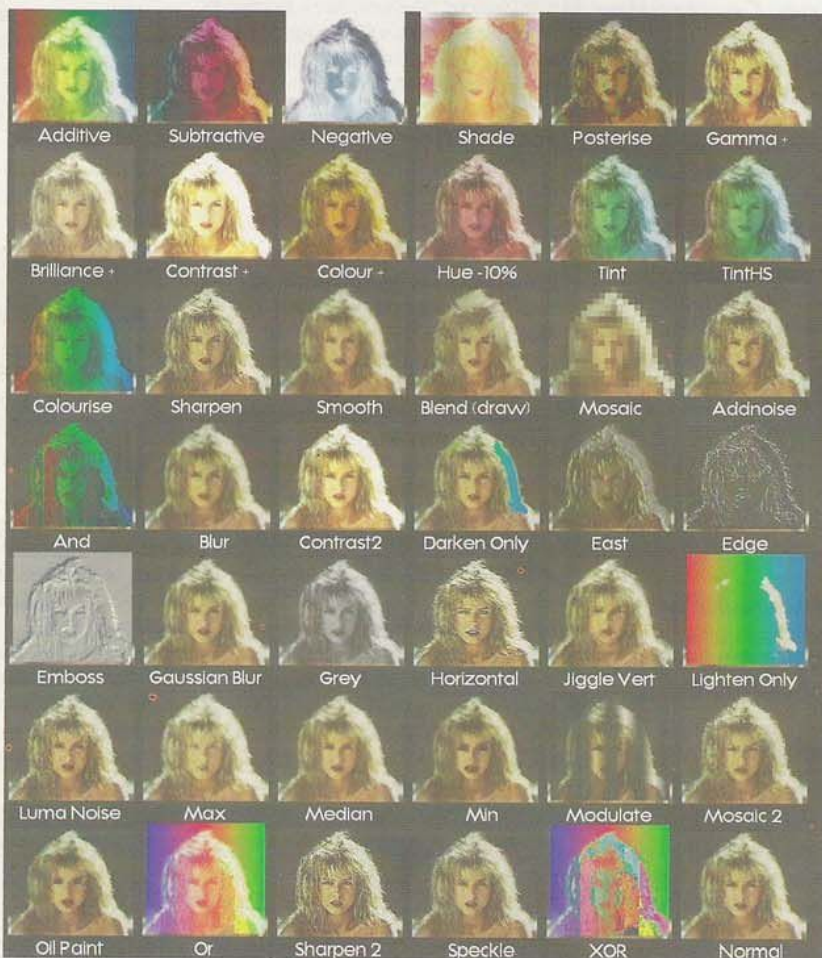
To cope with the complexities of 24-bit graphics, *OpalPaint* employs colour tolerance selection to make stencils or masks. In each case, an area is defined by selecting a colour and then opening up a tolerance range either side of the colour, using HSV sliders.

Using this feature you can pluck a man out of a background of trees, fill complex backgrounds with one colour whilst leaving a foreground object untouched and fill complex objects with a brush without spilling into neighbouring areas. It tends to be a bit on the experimental side when you first play with it, but a little toying with the sliders and the results are very impressive. You can also paint traditional air-brush style stencils or friskets.

Anti-Aliasing

Nothing looks worse than a brilliant 24-bit brush with jaggy edges. Using the anti-aliasing function, you can automatically smooth the edges on any shapes you draw, or brushes you stamp down. The downside on this baby is that the tops of circles tend to be lost, leaving a not so round shape behind, with great smooth edges. Not so slick.

Despite this small problem, I tried massive 164 point Outline-Fonts, with antialiasing on 100%, and the results are amazing. *OpalPaint's* text handling is reasonable for a program of this nature. There's full support for WB2.x's outline fonts. You type the text to be



rendered into a requester and Opal turns it into a brush.

Colour Requester

Sixteen million colours never looked so good. Choose your colour, then wash and stir with others to create new

ones or Load up preset colour swatches and select from there. Once again, thumbnail views of the swatches are provided on the file requester. Both HSV and RGB sliders provide dial up selection, or you can choose from the colour selection block, or from a named list of defined colours.

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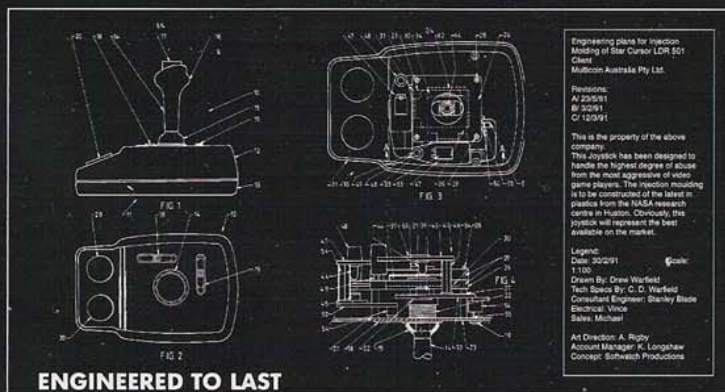
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Brush Handling

Ten different nozzle shapes are available from the tool box, however a click with the left mouse button and the Nozzle Manipulation Menu appears. From here you can select from different artist's tools including chalk, texta, pencil, air-brush and water colour. There are also five different paper types. The paper depth and tool weight can also be adjusted. Both tools and paper type information are stored as external modules and may be added to as time goes by. Smart design.

Air brush mode, probably the most often used mode by serious digital artists, is not as fast as it could be. For most, the air brushing works well as long as you choose a low flow rate and build up the level of paint gradually. Fast brush strokes result in an inconsistent flow rate. Annoying, but workable as it is. A faster Amiga could be the answer. From this menu you have access to support for the Wacom and Calcomp pressure sensitive touch tablet. Other models will be supported in the future.

A brush can be sized, rotated, warped, saved and the handle moved. Brush scaling offers three levels of accuracy, with the best and slowest producing very little quality loss. Up to three brushes are held in memory at one time and you can swap and copy between these easily.

Modes

I've left the best to last. Like *Deluxe Paint*, *OpalPaint* offers several modes of painting - twenty presets with room for additional loadable modules. Many of these modes have adjustable levels. Rather than waste valuable words describing all these modes - check out the illustration.

With all these fabulous modes, nozzles, paper texture and the like you'll be glad to know there's a Panic button to restore *OpalPaint* to normal mode.

Other Features

Well, we really should have left more space for *OpalVision*, but it is

the December issue after all! So, other features I've skipped include Alpha Mode, Spare Pages, AREXX, the simple but usable *OpalPresents* slide show program (with image transitions), *Opal's* excellent Hot Key utility for popping up 24-bit images behind any application (including *Dpaint!*).

What's missing? Animation, perspective, animation, colour cycling (impossible), animation, full overscan support (without scrolling around), animation and animation of course. *Opal* plans to fix these small shortcomings with future software upgrades, including animation.

Conclusion

Opal Technology deserve recognition for their persistence, talent, professionalism and technical skill. *OpalVision* is an impressive piece of hardware, whose few problems will no doubt be overcome in future updates to the software.

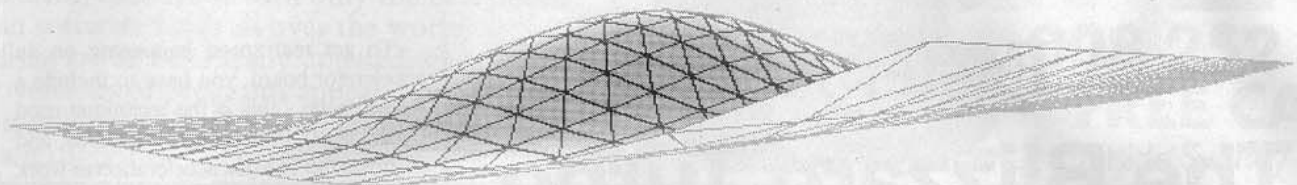
Although often compared to systems costing many times the price of most motor cars, in all fairness *OpalVision* does not really compete with *Paint Box* systems - yet. It is clearly hot on the heels of this kind of technology and with more development in the animation department, and a little extra speed, *Opal Technology* may well be replacing much more expensive systems. Some say that resolution lets this device down, and whilst there is some truth in the advantages to higher systems, it's always at a much higher price.

For the money, *OpalVision* is top value, lots of fun, and we will no doubt see some serious work happening. *Scala* have an *Opal EX* module almost ready and the new *AnimPlayers* for running lo-res, 12,15,18 and 24bit anims or 8-bit full overscan, hi-res anims mean professional applications of this hardware are ready to go.

Even if only half the promised additions arrive, *Opal Technology* will go a long way.

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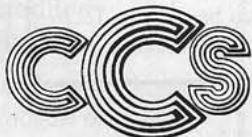
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The biggest limitation of the bog standard Motorola 68000 based Amiga is that in raw number crunching terms, it's a bit on the slow side. Amigas which are many times faster are available. Raw number crunching is certainly not everything and we all know that the Amiga's graphics and sound are a big plus - but it certainly doesn't hurt to have a bit more grunt when you need it.

Until recently, the main way to get this was by spending large money on a 68020 or 030 board, which is certainly nice if you can afford it but remains well out of the price range of the average punter - most nudging \$1000. The alternative was to spend more than \$300 on the AdSpeed accelerator, which is a cached 16MHz 68000.

Cheap Accelerators - What's The Difference?

A brief digression to clear up the confusion about accelerators. The big problem with accelerating Amiga is that you can't just whack in a processor that can handle more speed and change a clock crystal. This tactic doesn't accelerate the Amiga's custom chips, so the total speed increase remains unexciting. There are several Public Domain designs out there for such straight 16MHz processor accelerators, but in everyday use you'll only see about a 10% increase in speed, with maybe 80% on specialised stuff like archiving.

The advantage of such designs is they're dirt cheap - maybe \$50 if you build them yourself, around \$100 if you buy them (though I've not seen any reliable commercial designs as yet). Another cheap accelerator option is the one I use - the 68010 processor. With the addition of a simple patch program, the 010 is plug-in compatible with the 68000, costs maybe \$35 new and gives roughly the same speedup as a 16MHz 68000 with much less hassle.

Adding fast RAM to your machine - RAM above the standard 1Mb - will give you a good 30% acceleration more or less across the board with exactly the same processor. This is because so-called "fast" RAM such as comes in the A501 expansion is just as slow as Chip RAM - it just can't be addressed by the custom chips unless a modification is made. So simply plugging in an extra meg or two will give you a better overall increase in speed than any amount of jiggering around with a basic 16MHz accelerator.

To get real speed happening on an accelerator board, you have to include a RAM cache - this is the technique used by the big 020, 030 and 040 boards, and it allows the 16MHz acceleration to work properly, and gives a true 100% increase in speed with even more on some functions. The AdSpeed has this, and has thus sold quite well over the many years it's been available, but the Blizzard looks set to unseat it.

Off with the Lid

The basic design of the Blizzard's accelerator section is the same as the AdSpeed's, but it also includes room for up to 8Mb of RAM expansion - which is used as the cache - and on top of that the Blizzard features "Shadow RAM", which allows the operating system to be copied into a 512K RAM bank for a slight extra increase. This feature was previously confined to monster accelerators.

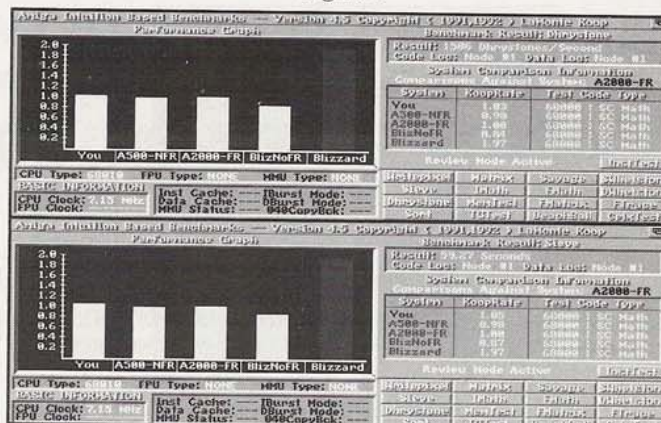
The advantage of a RAM (as opposed to ROM) based operating system on a big accelerator is that everything will move along faster, since the accelerator's access to RAM is much faster than normal ROM access. On the Blizzard board, the increase is only slight, since the 16MHz 68000 hardly beats ROM speed anyway. But the Shadow RAM still allows you to use an operating system that isn't actually in your machine - avoiding the need for a KickStart swap board to get badly written programs to run.

Before you install your Version 2 ROM, you just run the GRAPROM program which comes with the Blizzard (and isn't actually mentioned in the manual, but no matter), and it'll read your old

ROM into a data file which can be loaded into the Blizzard via either of its two configuration programs, both of which thankfully ARE dealt with in the manual.

Getting a KickStart file from someone else, without actually buying the ROM, is piracy. The Amiga's operating system is copyrighted to Commodore, and copying it without paying is the same as any other piracy, and subject to the same \$50,000 fine should you be caught. Technically, so is making your

Figure 1



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The Need For Speed

To the important stuff - how fast IS the Blizzard? Without any expansion RAM, not very - only 1.17 times straight A500 according to SysInfo, and 0.89 times the speed of an ordinary 7MHz 68000 based machine with true fast RAM (i.e. expansion above the basic 1Mb).

Add some onboard RAM, though, and you're talking 2.66 times straight 500 speed, 2.02 times fast RAM speed, and a very respectable 0.70 of the speed of the A2500's A2620 14MHz 68020 card! You're still only running at 6% of the speed of an 040, but you've also paid a tenth of the money. Putting the OS into RAM gives a tiny increase on top of this - about half a percent.

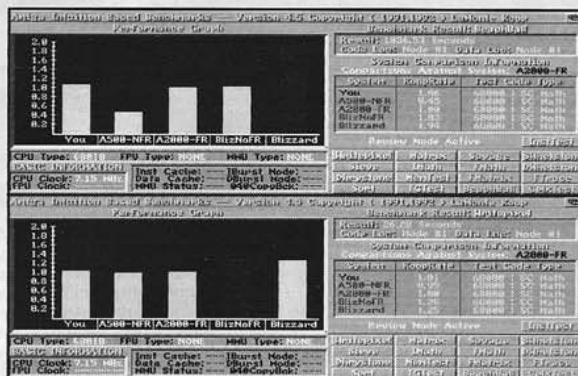


Figure 2

As you can see, getting a Blizzard without extra RAM is a waste of time - my 68010 is 17% faster for 10% of the price. With no RAM and no Shadow RAM either, the board is a \$399 dead loss. Add Shadow RAM - which doesn't give a significant speedup but does simplify running your machine - and the price goes to \$450. With a megabyte of fast RAM the board'll set you back \$550, which looks a little suspect to me since DIP RAMs of the type it uses sell cur-

rently for less than \$60 a megabyte - memory board manufacturers often overprice their RAM to boost profits.

With a modicum of do-it-yourself ingenuity or a friendly tech, you'd probably be able to save the thick end of \$100 off the price of a 1Mb Blizzard with Shadow.

Performance Tests

As you can see in the accompanying screenshots from Amiga Intuition Based Benchmarks

(AIBB), the Blizzard really creams the competition in basic number crunching, as shown by the Sieve and Dhrystone tests in Figure 1. The comparison base is a 68000 Amiga with fast RAM, and the column labelled "You" is my 68010 machine. The performance of the Blizzard without fast RAM is pathetic - slower than an unexpanded 500 - but add RAM and you've got twice the speed of the regular fast RAM 2000.

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seen in the WritePixel test at the bottom of Figure 2, the difference is less spectacular. Since most of the work still has to be farmed out to the custom chips, fast RAM and processor speed don't help the Blizzard as much - in fact, the version with fast RAM disabled came out 2.5% ahead, but that's just a measurement glitch. But it's still a good 25% faster than the competition. And the BeachBall test at the top of Figure 2 - in which the machine simulates a "real world" task by raytracing a picture of a ball - shows both the Blizzard back up to speed and the appalling slowness of a machine with no fast RAM - less than a quarter of the Blizzard's pace.

AIBB has a further 13 tests on top of those shown, but they all say much the same thing - twice the speed of a fast RAM 68000. If you currently own a one megabyte machine, the improvement will be even more dramatic.

Installation

Installation is amply covered in the

clumsily translated but perfectly comprehensible manual - all you have to do is plug it into your 68000 socket and power up. If your machine already has RAM expansion above a megabyte, it'll probably clash with the Blizzard and either it or the Blizzard's RAM will have to be disabled; since only the Blizzard's own fast RAM can be used as a cache this is not desirable.

Also, if you already have a KickStart swap board in a 500 you'll have to get rid of it or invest in a couple of spare 68000 sockets to jack the Blizzard up far enough for there to be room to fit the accelerator board over the top. Both of these problems are not serious, since the Blizzard fills the functions of RAM expander and KickStart swap perfectly well itself.

I had some problems installing the Blizzard, since my 68000 socket has had so many things plugged in and removed over the years that it can't muster the grip to hold in anything bigger than a single chip, but anyone who's never touched the CPU socket before should

have no problems.

Conclusions

The Blizzard's biggest market is A500 owners, but it fits just as well into 2000s or even 1000s, with or without Phoenix board (a \$35 zig-zag adaptor board is available to mate with the Phoenix). It's made in Germany and looks very reliable - which is just as well, since its four-layer PCB would be a dog to work on if anything serious went wrong. Installing RAM, however, is a simple matter of plugging in the chips and setting DIP switches (not fiddly jumpers) as directed in the manual.

Overall, in the Blizzard we have a fairly well priced, reliable everything-board which gives plenty of RAM while leaving the 500's side expansion slot and the 2000's card slots free, and it gives dual operating system convenience too. This board deserves success.

For more information contact Pheonix on (08) 293 8752. RRP with no RAM \$399. With Shadow \$449.

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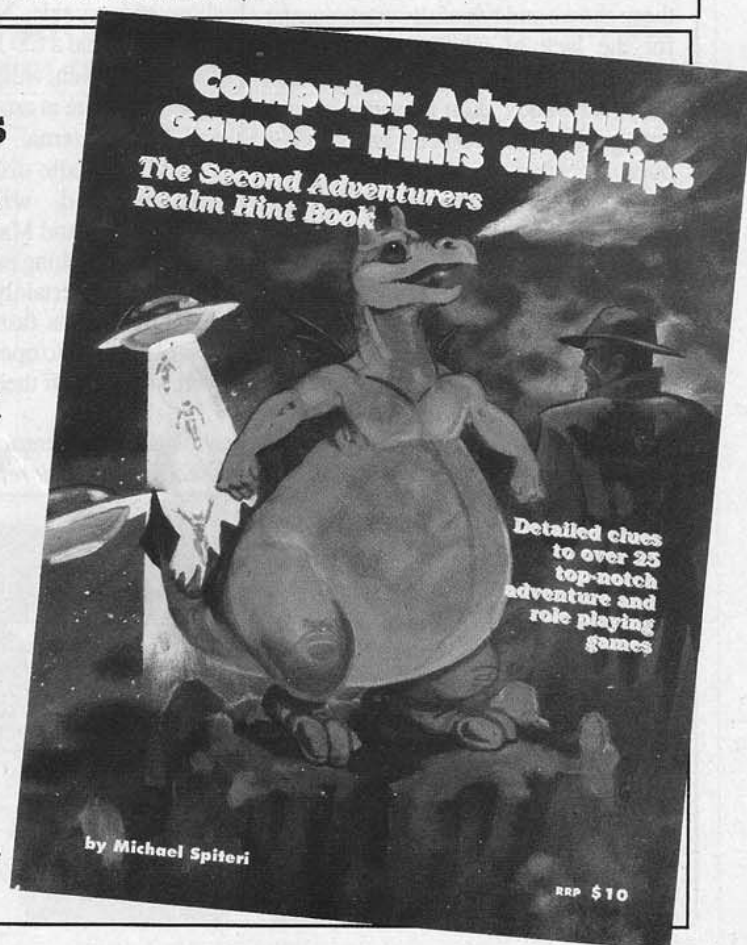
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Show Report

AMIFORUM 1992

by George Kimpton

As the first spring flowers blossomed in Sydney, the Amiga User Association held its third AmiForum Show at Parramatta Town Hall. Harry Scruton, Bob Bliss and the other workers did a wonderful job yet again.

One thing that is always noticeable at Amiga shows is the enthusiasm of both those behind the display tables and the visitors who come to see what is new and spot any bargains to be had.

This enthusiasm is the lifeblood of these shows and hopefully compensates for the lack of visible support from Commodore itself. One thing is for sure this year's show didn't disappoint with new products to be seen and drooled over.

With eighteen stands on the main floor and two displays - cum - seminars up on the stage, the hall was crowded with enthusiasts. In the more popular areas such as the seminars and the Amiga 4000 it was standing room only with a long wait to get to the front and see what the excitement was all about.

Exhibitors

All the usual stands were there including AmiTech, SigmaCom, Clover Partners, Shadow Software, DataFlow, The Disk Company, CPA, Prompter Presenters, Harris Hi Tech, Unitech, Computer Discounts (MAST), Megadisk, Tony Day, TupSoft, Lizard of Oz Games, Black Knight, Desktop Utilities, Impact

Camera House and of course the latest addition, Opal Technology.

One notable omission was the effervescent Karen and The Hard Disk Cafe team who have always been such strong supporters of the Amiga. (Latest news is that Hard Disk Cafe appear to have closed their doors - more on this sad news soon.)

New and Interesting

There were plenty of goodies on show and on sale. Mark Harwood of SigmaCom had a CD Drive for the 2000 on show which will be bundled with Xetec software at around \$799 internal and \$899 external. It will recognise CDTV and audio disks and a range of formats and will work with bridgeboards and Mac Emulators.

A new morphing program from GVP, CineMorph, certainly looked very interesting. It was fast and smooth and best of all, easy to operate. Black Knight were showing off their 2Mb Chip RAM

conversion along with a Multiple Kickstart board, a sound digitiser and an EPROM programmer to allow you to burn in your own Amiga chips.

The chip conversion unit, called Top Chip, is very easy to install. You just unplug the Agnus and Gary chips, insert the board, and replace the chips and hey presto 2Meg of Chip RAM at your disposal. Great for Opalvision and certainly much cheaper (\$269) than imports as Top Chip is locally made. I think it also allows software switching of hardware items such as Accelerators and Chip Memory.

Garry Cohen (CPA) and family were showing off his stop frame controller and a series of anim disks for those wedding productions. I gather some other anim packages are in the pipeline for the near future.

Shadow Software, a relative newcomer, made their first appearance with displays of software and printers. Shadow comes with a wealth of experience in servicing and is looking to support Amiga users from their shop in Victoria Road at Parramatta.

Clover Partners were joined by Muirfield Technology High School from North Rocks and one interesting item noticed on the stand was a series of educational software (Satchel), from South Australia. It's good to see more educational software coming out for the Amiga as this is one reason for its lack of penetration in schools.

Seminars

Perhaps the highlight of the show was the lectures or seminars and demonstrations up on the stage by Opalvision and Impact Camera House. As soon as one show finished the chairs were turned around and away went the other show, almost non stop.

Opalvision needs no introduction, particularly to those who have been fortunate enough to see it in action at the World of Commodore or elsewhere

From left: Tony Pitterino, The Disc Company; Peter Fedor, Commodore; Mark Tyler, Commodore



but it certainly drew the crowds as well it might.

Multi Media is the buzz word today in business and Peter Szekely of Impact Camera House certainly showed the Amiga can hold its own with the other systems. Using *Scala*, *MediaPhile*, the GVP IV-24 Video Board and the Sunrise AD1012 digital sound processor board he put on quite a show and there were no spare chairs at the demos.

Amiga 4000

Last but not least the supposed star of the show, the Amiga 4000 (Beta version) running on WB 3.0. Hiding in a borrowed case and exhibiting a severe case of split personality with a 3500 model label on the front, the 4000 display was queueing room only. It was just about impossible to get near it, let alone play with it, so I had to



Mark Harwood, Sigmacom; Bruno Galati on right

settle for peeking over someone's shoulder.

Workbench 3.0 on the surface does not seem to have changed much from 2.04 but has a few new features including *CrossDOS*. The 4000 itself certainly seemed to run at a smart clip with the new Advanced Graphics Architecture and co-processor chips.

It will be capable of displaying up to 256,000 colours on screen from a palette of 16.8 million and is said to rip along at around 20 million instructions per second. That sure is moving.

It will also come standard with a 120 Meg hard drive, 6 Meg of RAM and a dual speed high density floppy drive. Sounds like the Amiga is set to hold its place up there with the big boys but still at a more cost effective price.

Departures

Sad to say Harry Scruton tells me this is his last show. He and his helpers have done a marvellous job in the past, with little known about all the behind the scenes work. The Amiga Users Club will be looking for someone to take over the reins for next year.

They are also looking for new members (joining fee \$35) and at \$25 a year it's good value with an excellent and informative bi-monthly magazine and much more. Applications to PO Box 389 Penrith, 2750. □

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If you own a video camera, VCR and an Amiga, you have all you need to get down and edit your own home video production. Video Director makes the entire process computer controlled.

Death, taxes and pictures of the camera person's feet. A certainty of life. Even the best video operator will want to edit out the bad bits. The easiest way is to copy what you want from your camera to a VCR. Trouble is, remembering where all the good shots are, and finding them before the REC-Pause on your record deck gives up.

Video Director, at around \$249, provides the necessary software and hardware to control your camera and VCR directly. In a worse case situation you can at least use it to log your video tape to make finding worthwhile shots a snack.

Hardware

Here's how it works. Ideally, you should be using a camera with a SONY style CTRL-L port, sometimes marked Remote. This port is common to almost all Sony cameras and of late has started appearing on numerous other brands including Canon.

My setup includes the Canon EX-1 Hi, and of late I've had a long loan of the new Sony 6000. Both cameras are Hi-8, offering excellent video quality - probably the best in the Prosumer range. Both camera have a CTRL-L port which when connected to the Amiga's serial port, sends the tape counter position out and receives tape shuttle commands in.

Having spent all my spare money on the camera, my record deck started out as the family VCR. With the heads cleaned and a quick dust down, this turned out to be an acceptable start. Eventually I invested in the Panasonic FS-90, a S-VHS deck with Jog and Shuttle, Insert Ed-

iting and Audio Dubbing - all you need to create reasonable quality home videos, not to mention the odd wedding, and commercial jobs too.

Your equipment will probably be different. I researched the subject heavily to arrive at the above configuration. It's an idealistic setup. *Video Director* will work equally well with much cheaper gear. However, the point is, you can create a serious desktop edit suite using top of the line consumer equipment and achieve meaningful results without going to the far more expensive professional hardware.

Video Director controls the record deck using an Infra-Red transmitter connected to the Amiga's joystick two port. You train the software using the infra-red controller from the record deck. After that, operation of both camera and record deck is controlled by a series of gadgets on *Video Director*.

Operation

Once everything is installed, and the appropriate drivers selected, you can start

work. The first step is to calibrate the camera (or source deck). Even with the Sony 6000 time code, the software currently insists you rewind the tape, click the calibration gadget, reset the camera counter and you're ready.

As long as you only control the camera from the software, you only need to do this once. However if you eject the tape without telling *Video Director*, or change the tape position manually, you'll need to recalibrate.

Now you're ready to log your raw footage. Hit the play gadget and when you find a useful segment, click the start gadget. The start point is recorded and then you position the tape at the end of the segment. Hit the end button, name the scene and add it to your log.

Video Director builds a library of every tape and segment you log. So, at the very least you can use it to catalogue your tape library. However, for editing purposes, the segments you log can be rearranged, shuffled about, and then assembled as a new video.

Using simple cut and paste gadgets, you move all the segments logged from your source tape into some kind of order. You can also include still graphics, divide the log into scenes which can be collapsed and expanded and moved around. When everything is in order, hit the ASSEMBLE button, and *Video Director* will locate all those fabulous shots from your camera and copy them one after the other onto your VCR. This is called assemble editing. It's a little crude compared to multi-source tape editing, (A-B Roll) with fancy dissolves between segments. However it sure takes the tedium out of editing and makes it fast and fun to create great looking videos.

If you have a genlock you can use the graphics overlay capability of *Video Director* to sequence IFF images containing titles, opening screens and the like.

Problems

In day to day use, I discovered a few niggly problems with the software. Although it worked well during the assembly process, I was greeted with



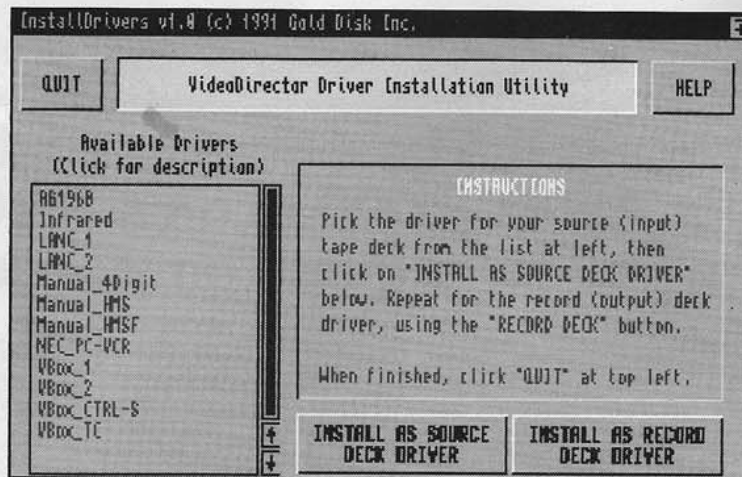
the occasional software failure when shuffling segments around. Providing you save on a regular basis, this is not a big drama.

The biggest hassles related to missed edits. In other words, during the assembly of logged segments, some would be missed out. Normally this was because the unpause operation didn't trigger the record deck. Increasing the burst of signals seemed to help this one. But to this day, I've found the program only works 100% reliably on an accelerated machine.

The other major bug is in the timing of the segments. From the options menu you can view the cumulative time of your segments. The last time of the last segment is the length of the edit. So you want three minutes worth of footage, you

just add the time of the last segment to the last time displayed and work out if you have enough, right?

Wrong! The cumulative time does not allow for the number of frames beyond each whole second. Over a number of clips, the time gradually goes out of whack until the last segment, where it might be wrong by ten seconds. Very



annoying. In the end you have to time run your edit once and time it using a stop watch to see if you need to add segments.

The Up Side

Logging a tape means you can always come back and create a new edit in minutes. You can easily insert segments and re-run the assemble to create a longer video. You can also juggle scenes around, or delete scenes easily. The idea of logging a video, shuffling around the segments, hitting assemble and then heading out for lunch is very appealing. Once you have all the gear working reliably *Video Director* is a dream to use. For more information contact Desktop Utilities on (06) 239 6658. RRP \$249. □

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The Blizzard Board has recently been reviewed by the German magazines.....

Amiga Plus 8/92- "Highly recommended for everybody who needs more speed and memory for little money"

Amiga Joker 9/92- "Competitive review of 4 low cost accelerators (incl. an '020 board and ICD AdSpeed): "The Blizzard board is the leader (of the test group)....."

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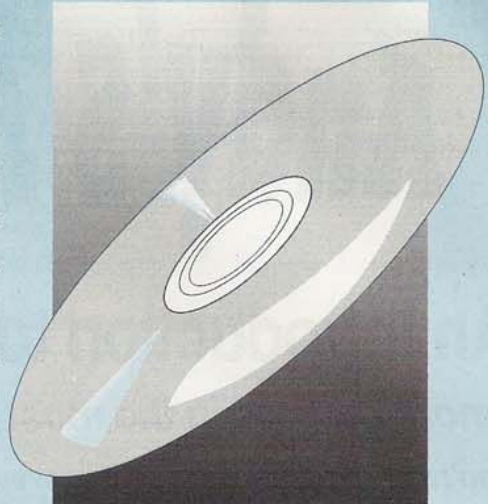
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If you're looking for a smoother way to keep up to date with your electronic mail, here's a few suggestions from Andrew Leniart.

Reading FidoNet echo mail and replying to it online is fast becoming a thing of the past. These days, many BBS callers are opting to download their mail and write their messages offline where time limits don't matter and they can take their time. IBM users have long had the advantage of having a large range of software available to them for this purpose. I'm happy to say that the range of software for the Amiga these days is finally catching up.

There are two methods available to Amiga users which make it possible to read and reply to mail offline. You can download mail online via a .QWK or similar format message download utility or you can point. Both have their advantages and disadvantages.

The former method is handy if you're not into message writing in a big way, but just like to stay in touch with what's happening with the people local to the boards you regularly call. It involves a simple process of selecting the areas you are interested in via a special utility on the BBS and downloading the mail you are interested in while online. You then use something like "Amiga Reader" to read that mail once you've logged off and upload your replies the next time you log on.

Now, this is handy but is also time consuming in itself. Most boards give users 30 to 60 minutes of online access per day. If you go and download a decent sized mail packet which includes some

networked messages, then you can spend anything up to 3/4 of your online time just downloading the mail. That on its own defeats the purpose of doing your mail offline. Then you also have the hassle of having to log on to the board and crash dial until you manage to get through to get your mail and upload your replies. On a busy BBS that drags in 30+ callers a day on one line, it can often take ages to get through. There is a better way, and this month's Attic column is devoted to it. The art of Pointing.

What's Pointing?

To understand the concept of pointing, one first needs to have a basic understanding of mail networking and how echo mail works. A very brief explanation would be something like this.

When you write messages in any echo area such as Aust_Amiga, then each night at a predetermined time, your message along with any others that have been written on the BBS get packed up into a single mail archive ready to be sent out. But sent out to where? In the case of Aust_Amiga, all over Australia.

Aust_Amiga is a FidoNet echo area. Every participating FidoNet board is assigned to a Hub. Hang about, what's a hub? Well, in the same way as each suburb has its own post office, each FidoNet node (or BBS) has a local BBS which acts as a hub. They are assigned to that hub for mail distribution.

These hubs collect all the mail from their own network (suburbs) and then pass on the mail to a Central Hub. From there, the mail gets passed on to other hubs and so on until your messages reach and end up on every participating board in Australia. Your favourite FidoNet BBS gets its messages via the same process. A great way to stay in touch with like minded people and pick up hints and tips of all sorts that are applicable to your hobby.

So that's a very basic explanation of how mail gets distributed around the country. Now how can you become a part of it? Not everyone wants the hassles of running a BBS so a lot of people opt to point. Here's how we do it.

Pointing Software

First of all, you need to get hold of a piece of software that will allow you to read and write FidoNet compatible messages and create correct mail packets. These days, there are many to choose from, however while I've looked at plenty, I personally have only ever used two. *GCCHost* and *Foosle*. The latter is by far the most popular choice if only for its ease of use and initial setting up.

GCCHost however is also packed with features and many would argue that it is in fact, superior to *Foosle*. Happily, both are shareware products and should be readily available on many bulletin boards around the country, so the best idea is to download them both (or one of the many others) and decide for yourself what suits you best. For my money though, I'd go with *Foosle*. Support is available here in Australia (see previous issues) and it works very well.

Mailer Software

The software mentioned above deals with the reading, writing and packing of your messages only. A mailer serves as a front end modem operator and gives you the means to send your messages to the BBS you will be pointing from. To do this task, you'll need something like *Trapdoor*.

With *Trapdoor*, all your problems of waiting to be able to get online to the BBS to download/upload mail packets will be eliminated. Here's why. Points (that's you) more often than not get a

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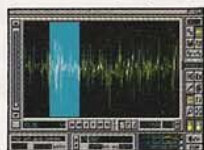
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session time allotted to them by the SysOp of the BBS they are pointing from. This is usually in the early hours of the morning. The time slot is reserved for you and you only which results in no BBS callers being able to use your time slot to log into the board. Result? No busy signals.

You may be thinking that it would be a bit of a pain to have to get up at all hours of the morning just to make sure that you get your call in to collect and send your mail. Well don't worry, as *Trapdoor* can be fully configured to perform this task for you automatically. A properly set up front end mailer such as *Trapdoor* will automatically call the BBS you point from, send your mail out and collect the next packet bundle of mail waiting for you to pick up in the one call.

You don't even need a dedicated phone line for your pointing, as in coming calls are unaffected if *Trapdoor* is told not to pick up the phone. Therefore if someone happens to phone you when *Trapdoor* is running, the phone will simply ring as normal and you can pick it up

and take the call as normal. Brilliant piece of coding that once set up correctly, is well worth the price of registering it.

Getting a Point

Okay, once you've got your software set up and running, you now need to approach a BBS that will accept you as a point from their system. This is generally quite easy as most Fidonet SysOps encourage users to participate in the many echo areas available. Simply approach the SysOp of the Fidonet board you call and ask (politely) if he would mind accepting you as a point. More times than not, the answer will be yes. Once you have approval, the BBS SysOp will usually contact you voice (or get you to contact him voice) and set up session times for your mail polling, hook you up to the echos which interest you and from there it's all downhill.

First Things First

Just a couple of notes. Be sure to have

your setup as ready as possible before asking to be accepted as a point at any BBS. Setting up pointing software can be a daunting task, so be sure to get it working before hassling the system operator to be issued with a point number. Naturally, you're not going to be 100 percent sure that all is working until you get a mail packet to try it with, but do as much as possible. Ie: Make sure that *Foosle* is exporting correctly to a fake network address you have set up. Try crashing a message through to the BBS SysOp with *Trapdoor* and see that all goes well. If you explain what you are doing in your test message, he will almost certainly not mind and will probably appreciate the fact that you are making the effort to be set up correctly and not rushing into it like a mad bull.

Solving Problems

If you read the manual and still find you are having problems setting up the software and feel lost, then seek help via the software support echos. Both *Foosle*



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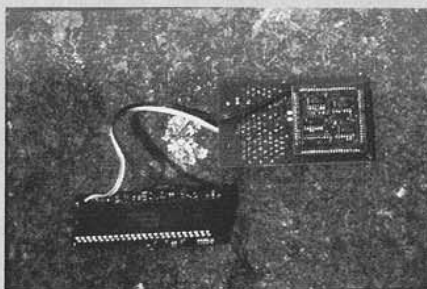
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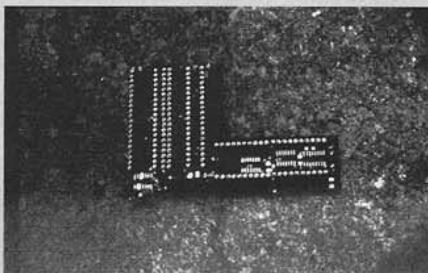
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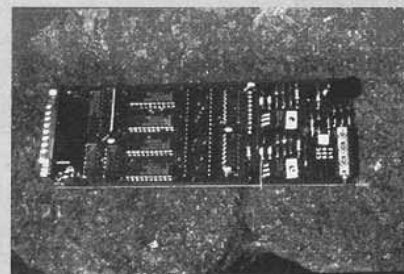
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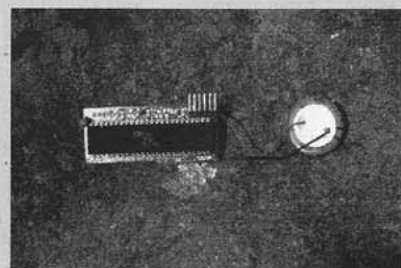
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and *TrapDoor* have echos designed for this purpose. If the BBS you call does not carry these echos, try one of the other many Amiga support echos instead. Post a message to ALL stating the problems you are having and request for replies via Netmail if your post is not in the support echos.

Another good way of finding help is to read any Amiga echo and look for an origin line that identifies the poster of a message as a point. For example, a message which is written by "Joe Stocks" and has an origin line like..* Origin: Andy's Attic! (3:633/106.3) indicates that he is a point from the system he is writing from. Send Netmail to a few different people already pointing and ask if they would mind helping you out. You'll

find that most people will only be too happy to do so.

Conclusion

Try it out. Pointing is a great way to stay in touch with the latest info for the price of a local phone call, yet without all the hassles of having to run a BBS.

The software mentioned in this column is written by the following people.

Foosle - Peer Hasselmeyer (2:247/4 @fidonet) (2:2405/204 @fidonet)

TrapDoor - Maximilian Hantsch & Martin Laubach (FidoNet Address Unknown)

Nodelist indicates "TrapDoor Development" at (2:310/6 @fidonet) Sysop - Rene Hexel

Glossary of Terms

Seasoned modem and BBS callers will probably have little trouble following what's contained in the majority of this month's column. However new modem owners may find some of the terminology used this month a bit difficult to understand.

In an effort to allow new modem users a chance to understand what I'm talking about here, without over simplifying the column to the extent where seasoned users are bored to tears, I've written up the following glossary of terms which could be considered confusing in order of appearance.

FIDONET - An amateur electronic mail system which has an aim to move information and in some cases files between bulletin boards. It is an organisation run by unpaid volunteers.

POINT - A person who has set up software which allows him to read and reply to messages downloaded from a BBS.

ECHO MAIL - FidoNet EchoMail gives you the means to talk to other people on other Bulletin Boards around the world for the cost of a local phone call. Similar to having pen friends and talking to them via sending letters to and fro via the post.

BBS - Bulletin Board System..

QWK - A message format which is produced by a utility set up on a BBS which allows you to download bundles of echo mail just like you would a file.

AMIGA-READER - is one of many similar utilities which allow you to read .qwk downloaded messages.

NETWORKED - Messages referred to as NetWorked would be those such as contained in echomail conferences. <see above>

ARCHIVE - An archive gives you the means to compress and create a single file containing an unlimited number of other files (or mail packets).

HUB - A BBS charged with the responsibility of distributing echomail and netmail to its nodes.

NODE - A BBS which is a member of FidoNet or any other similar network.

PACKING - See Archive above.

SESSION TIME - A time slot allotted to a Point or Node by a BBS or Hub to guarantee a successful

connection if the attempted call is made at the allotted time.

MAILER - A piece of software designed to (among other things) automatically call a BBS or HUB via a modem and perform automatic mail transfers like collecting and sending mail packets.

SYSTEM - Another term used to describe a BBS.

POLLING - Term used to describe the call made by a POINTS or BBS mailer to pick up any new mail waiting to be collected.

EXPORTING - Term used to describe the moving of messages you have written from your message utility (ie:Foosle) to an archived bundle ready to be sent by your mailer (ie:TrapDoor).

FAKE NETWORK ADDRESS - A pretend fidonet address that you make up yourself for the purpose of testing the setup of your software.

CRASHING A MESSAGE - Means sending a single message direct to someone at a BBS with your mailer and modem without having to wait for normal fidonet procedures of moving your message to get it to its destination.

NETMAIL - Also referred to as Email, is similar to EchoMail in the sense that it also gets to its destination just like echomail does. The difference is that Netmail will normally only be read by the person you have addressed the message to. Ideal for sending private messages between yourself and the message recipient.

ORIGIN LINE - At the end of any fidonet echomail message, there is a line starting with the word ORIGIN. This line usually contains information as to which BBS that particular message originated from along with the FidoNet address of that BBS. Andy's Attic's fidonet address is (3:633/106) The 3 is the Zone number, the 633 is the Network number while 106 represents my particular system (or node).

NODELIST - Is a rather large file containing the system name, sysop name, system telephone number along with other information about ALL fidonet participating systems around the world. The nodelist is updated weekly to keep it up to date.

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AMOS Column

Review: AMOS Professional

by Wayne Johnson

When I first loaded up AMOS Professional, I guess I really wasn't ready for the shock. Europress (the makers of AMOS) do state that existing AMOS owners will be quite surprised at seeing the new system, and they were right.

As soon as the editor loads, you know straight away that there is a lot to relearn. Getting around the AMOS system is basically the same except that in so many ways, AMOS Pro is a lot more flexible for editing and testing of programs. The help functions and the tutor (line by line debugging system) are two incredible luxuries for every AMOS programmer.

The first surprise is the box itself. It's around the same height and width as the Easy AMOS manual, but is nearly twice as deep. I suppose it needs to be, seeing that the manual is quite thick.

The whole package consists of the manual (written by Mel Croucher & Stephen Hill), registration form, Productivity manual, and six disks: The SYSTEM DISK (where AMOS Pro, system files and installer live), TUTORIAL DISK (fundamental examples for beginners), PRODUCTIVITY Disk 1 (contains four utilities and games), PRODUCTIVITY Disk 2 (contains Dithel's wonderland, an excellent Mario clone), EXAMPLES Disk (As it says, various examples), and the ACCESSORIES Disk (the new Object Editor, Sample Bank Maker, etc.).

Documentation

Going back to the manual, the actual layout has been carefully planned to make it as user-friendly as possible. There is a beginners section, a section on using libraries for intuition, even a section on copperlists (heaven forbid!). The two authors are responsible for other books on writing games in AMOS.

These two took note of the problems with the original AMOS manual and de-

cided to make the Professional manual as perfect as possible. Just a bit of trivia: the original AMOS manual was, in fact, just a reprint of the STOS manual (STOS is AMOS for the Atari ST), with a few commands changed here and there. That is why certain example programs did not work, and why commands such as LLIST crept in; when in reality, it didn't even exist in AMOS, only STOS!

Installation

After getting past the manual and box, I booted up and got stuck straight in without reading the instructions first. Installing AMOS Pro onto a hard drive is an Amiga owners' dream. The AMOS Pro logo boots up, and a selector appears asking what nationality your keyboard is. You should choose American, enter your name, and that is the end of the installation process for floppy users. Hard drive users may continue by clicking OK and setting the path to where they would like AMOS Pro to be installed by using the new requester.

AMOS Pro will then ask you to select your Boot partition for some of the system files, and finally, it asks which of the six disks you want to install. Installing all six disks is probably unnecessary if you're scraping for hard disk space (total is around 4.5 meg), however, AMOS Pro itself is probably all you'll need, and this will only use around 1.5 meg.

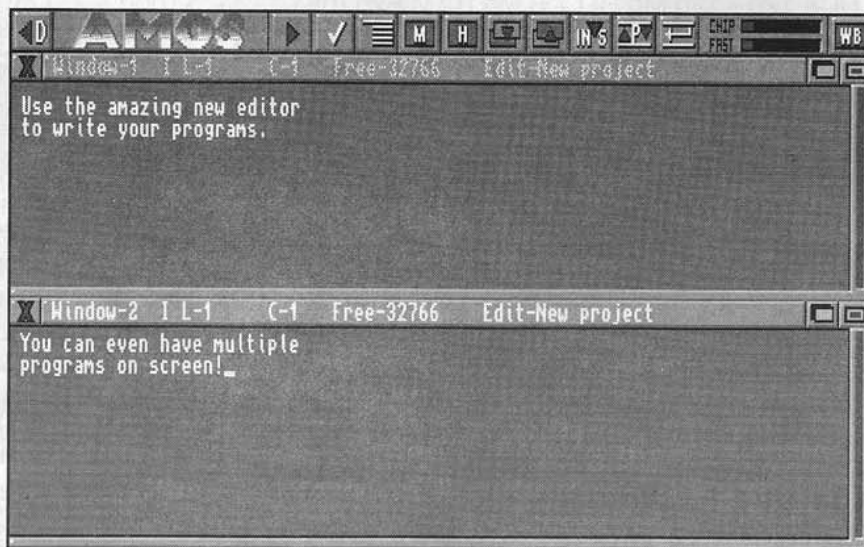
The Editor

Reboot and select the AMOS Professional icon and prepare for totally revamped programming environment. On booting, you get the usual blurb box, showing your registration number (be sure to lodge is with the Australian AMOS Club), telling you that you have four extensions loaded. Choose the ABOUT EXTENSIONS menu item (yes AMOS Pro uses menus!), and you will receive information about each of the four extensions that are loaded.

The most interesting of the four is the AMOSPro IO Devices Extension V1.0. This is the one that controls the parallel port, serial port, Midi ports, intuition calls.

There is a row of twelve icons running along the top of the editor, see figure 1. This provides a much larger working area for programming. The first icon takes you to the direct mode (ESC does the same job, heaps more on that later), the rest in order are, RUN, TEST, INDENT, MONITOR (yum), HELP (on-line baby sitter), Bring last window to front, Bring next

Amos Editor (Figure 1)



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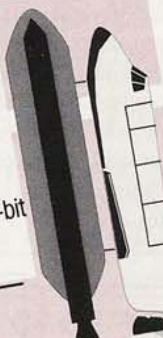


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A highly advanced version of the popular Mega-Midget Racer offering a faster CPU with Memory Management Unit, zero wait-state Static RAM support and an optimized Dynamic RAM controller rated at 40MHz.

- 50MHz 68030 with MMU, clocked at 38MHz for reliability
- 50MHz 68882 math co-processor clocked at 50MHz
- Zero wait-state Static RAM support; 512k, 1M or 2MB
- Supports CSA's hardware remapping of Kickstart ROM for caching of OS (1.3 or 2.0). SRAM is optional
- Optimised Dynamic RAM controlled rated at 40MHz.
- Special software for relocation of K.S. into 32-bit DRAM.
- Designed for incredible through-put using low-cost memory.
- Reliable surface mount design.
- Hardware and software selectable 68000 mode.

The 38 Special comes out of the box with enough horsepower to compete with the fastest 68030's. This less modular approach requires that you purchase the 50MHz 68030, 50MHz 6882 and 4 or 8MB's of optimised 32-bit RAM, all installed at the factory. (Dubbed the 'Flying Wedge' a 38 Special installed into an Amiga 500 out-benchmarks an Amiga 3000 by 40%!) 

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New Products

New Accelerator - The DERRINGER - from CSA

This new '030 accelerator from CSA beats the price barrier. Retailing at \$795 with 2 megabytes of 32-bit RAM expandable to 32 megabytes and upgradable to 50MHz, this baby should change the way people use their Amigas.

The NEW ICD controller boards have arrived

These units live up to ICD's reputation. They are one of the fastest transfer cards on the market.

- Features:
- 2 IDE controller outputs
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 - They are very impressive!

AMIGA 4000 - hmmmm!

As we go to press a month before the magazine's cover date, it was not known whether CBM would have released the Amiga 4000 by this date. However since I brought one back from the States I can tell you a bit about it - it's one mean machine - there are a couple of bugs with the HD controller but I believe that there is a fix already available - so look out for the A4000 at Ami-Tech.

Mega Midget Racer

20-50MHz for your A500 or A2000

Low-cost, modular and variable frequency 68030 accelerator that replaces your original 68000 CPU.

Supports a 68030 or 68EC030 microprocessor at clock frequencies of 20 to 33MHz. Supports a 68881/2 math co-processor at clock frequencies of 20 to 50MHz. Allows 512K, 1M or 2MB of Static RAM to be added for general use as well as hardware remapping of Kickstart ROM (1.3 or 2.0), which acts as a cache for the OS. 1, 2, 4 or 8MB's of additional 32-bit DRAM can be added with the CSA Mega-Memory daughter board. Reliable surface-mount design. Hardware and software selectable 68000 mode. Excellent reviews in all major Amiga publications.

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Accelerator can be purchased with just the 68030 installed or with a math co-processor, Static RAM and/or a Dynamic RAM daughter board.

- The Mega-Midget Racer comes with a 20, 25 or 33 MHz 68030 or 68EC030 installed
- Maths co-processor - 68881/2 at 20 to 50MHz
 - Static RAM - 512k, 1M or 2MB's
 - Dynamic RAM - Daughter board purchase with 1, 2, 4 or 8 MB's of 32-bit RAM installed

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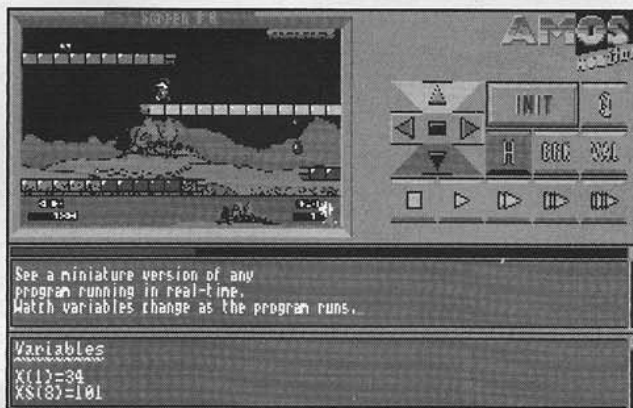
window to front, Insert/Overwrite, Fold/Unfold Procedures, Insert line, Switch back to Workbench.

Direct Mode

Click on the "<D" icon or pressing ESC takes you to Direct mode. I was amazed to find another row of icons running along the top, 13 in all. In order, they perform the following (before the slash is with the left mouse, and after the slash is with the right mouse button):

Go To Editor/Go To Editor, Toggle Output to Direct Screen or Work Screen/Same, List Bank/Screen Close, Default the Screen/Screen Open, Dir/Wind Open, Dir\$, Wind Close, Parent/ Bob Off/Sprite Off, Load Bank/Freeze, Save Bank/Unfreeze, Load IFF/AMAL Off, Save IFF/Edit, Show Full File Path/Quit System, Workbench to Front/Same.

It surprised me to find that the actual



Amos Monitor

Direct Mode window was now draggable with the mouse. The bottom bar resizes the Direct Mode screen. It actually slides the screen down rather than resize it, a little like a desk drawer. For those who don't know what the Direct Mode is; this is where you can enter and test commands, as well as load pictures and banks (banks being sprites, music, machine code, etc).

Menus

To configure AMOS Pro exactly to your own taste is now much easier than before. All the configuration programs are selected directly from the menus. AMOS Pro presents you with a series of clickable screens filled with icons and sliders, to make editing the configuration files a snap. There's a vast number of menus, containing block editing functions, project functions, hiding/showing programs, window selection, macro settings, Arexx settings, cut/paste facilities, search/replace facilities, full configuration menu, custom menu for accessories (like the Object Editor), help menu and so on. One of my favourite menu functions is the "CHECK 1.3" option. Select this and AMOS Pro will analyse your code and tell you whether or not it is compatible with AMOS 1.34. In

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these cases, your programs will be compatible with the compiler V1.34. Programs that aren't compatible will have to wait for the Compiler Professional, which is still some months away.

The 3D extension is also not compatible within AMOS Pro. Europress are working on alterations, and by the time you read this, there should be an update available.

File Requester

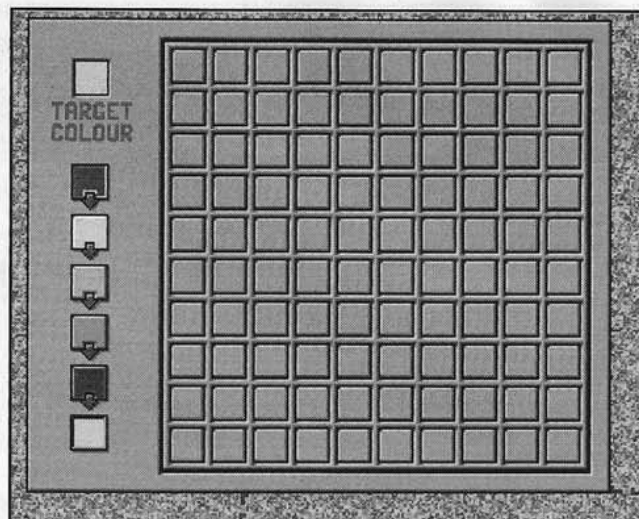
Much better than before. Floppy users will be pleased to know that AMOS will not load an entire directory every time they use a requester. This requester is intelligent and will remember the contents of past directories and parent directories of several devices.

Performance

One of the first things I wanted to try was a speed comparison. I tried the following code on both systems:

```
Timer=0 Repeat Inc A Print A Until Timer>=100 Print "You Reached";A;"units"
```

The results were 72 units on a standard 7.14Mhz processor for both AMOS 1.34 and AMOS Pro V1.00. A 14.44Mhz machine produced almost identical results of around 64 units. AMOS Pro had the slight advantage of around 1 unit occasionally; however, such a speed increase is insignificant.



Amos Puzzle

I would have recommended that most people go to Easy AMOS if they had problems with AMOS. In fact, AMOS Professional is the easiest of the three to create in. The many icons in both the Editor and Direct mode take away the usual grudge of loading banks and fiddling around with IFF pictures. I would say for anyone who is looking for more programming

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power, or who is an able programmer but finds AMOS is a difficult platform to program in, AMOS Professional V1.00 is definitely the way to go.

Ten Good Lines

Quite a while ago, I received two ten liners from AMOS club member, Glenn Babic from WA. These have got to be the two most impressive pieces of code fitted into ten lines. See for yourself. The first is called *Pop and Panic*. It features a little Mario character who can run and shoot, over a scrolling platform area while shooting a ball that splits into half, then half again, and so on (a la Super Pang), and it's only in ten lines:

```
1) Load "Extras:sprite_600/Fantasy/Mario.abk" : Hide :
Curs Off : Get Bob 15,0,0 To 320,25 : Double Buffer :
Synchro Off : Flash Off : For I=1 To 3 : Get Bob 11+I,0,0 To
I*20,9 : Next : Colour 4,0 : Ink 4,0 : Set Pattern 2 : Paper 0
2) Pen 15 : For I=1 To 4 : Clw : R=(I+1)^2 : Circle 30,30,R :
Paint 30,30 : Get Bob 6+I,30- R,30-R To 31+R,31+R : Next
: Print "!!" : Get Bob 11,2,0 To 14,7 : D$="IX<-
200JEIX>520JD" : E$="D:LX=-200JLE:LX=520JL" :
S$="L:LX=X+RA"+D$+"PJL"+E$
3) For I=1 To 14 : Hot Spot I,18 : Next :
B$="LR0=AL:LR3=R3+1LA=R0IY>145I
BC(R2,4,12)JC"+D$+"M:LX=X+R4+RA
```

```
LY=Y+R3PJLC:LR3=1-R3JM"+E$ : G$="A:IJ1-
16<0JALX=160LY=RY-
14LRZ=YFR0=1T23LR0=BC(2,4,12)*- 40+R0LR0=Y<0*-
40+R0LX=X+RALY=- 7*R0+RZNR0JA" : Pen 10
4) Get Sprite Palette :
M$="L:LRV=YA:IRBJULRC=BC(1,4,12
)=0IY<150&RCJVIRA=
4&R7JEC:LR7=RA*$1000+$4000IRA=0
JAB:LRD=RD+1I6+R7<RDJTQ:LA=RD PJ
AT:LRD=R7+1JQE:LRD=1JCU:LR4=-
10V:LRV=LY=Y+R4LR4=R4+1P;LR5=Y>150LR3=R4>-
1IBC(1,4,12)&R3IR5JWJVV:LY=Y/50 *50JL"
5) Do : Clw : M=3 : Repeat : Amreg(0)=-800 : Synchro :
Amal Off : Bob 3,0,150,15 : Bob 1,160,150,3 : Channel 1
To Bob 1 : Amal 1,M$ : Bob 2,0,-99,11 : Channel 2 To Bob
2 : Amal 2,G$ : D=0 : If Z=0 : Inc L : Colour
4,15^(Rnd(6)+1) : End If
6) N=13+(L-1) mod 4 : Z=(N- 12)*15 : T=2019-(L-1)/
4*400+(N- 13)*600 : For I=13 To N : Bob I,Rnd(720)-
200,Rnd(40)+40,10 : Channel I To Bob I : Amal I,B$ :
Amreg(I,2)=I : Amreg(I,4)=(Rnd(1)*2- 1)*(Rnd(1)+1) :
Next : For I=4 To 12
7) Bob I,Rnd(720)-200,108- Rnd(1)*50,Rnd(2)+12 : Chan-
nel I To Bob I : Amal I,S$ : Next : Amal On : Repeat :
Autoback 0 : Print At(1,22),"Level:"+Str$(L)+"
```

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C88/37A/145

Men:"+Str\$(M)+" Score:"+Str\$(S)+" Time:"+Str\$(T/20)+" "
Autoback 2

8) Amreg(1)=Jup(1) : Amreg(0)=(Jright(1)-Jleft(1))*4 : If
Fire(1) and Amreg(2,0)<3 : Shoot : End If : If Bob Col(2,13
To N) : For I=13 To N : If Col(I) : A=Amreg(I,0) : Dec A : If
A<7 : Bob Off I : Add S,50 Else Amreg(I,0)=A
9) Inc N : Channel N To Bob N : Bob N,X Bob(I),Y Bob(I),A
: Amal N,B\$: Amreg(N,4)=Amreg(I,4) : Amreg(N,2)=N :
Amreg(N,3)=Amreg(I,3) : Amal On N : Add S,10 : End If :
I=N : Amreg(2,0)=40 : Bell 63 : Dec Z : End If : Next : End If
10) If Bob Col(1,13 To N) or T=0 : Boom : Dec M : D=1 :
End If : Wait Vbl : Synchro : Dec T : Until D or Z=0 : If Z=0 :
Add S,T/2 : End If : Wait 50 : Until M<0 : Print
At(16,10),"GAME OVER" : Wait Key : S=0 : L=0 : Z=0 :
Loop

The second is called *Maze* and is like a little *Dragon Master*
type game where your aim is to get out of the maze within a
certain time limit. Control is with the up, left and right arrows,
while the down arrow is a power punch that lets you knock
down a wall. You have four of these. Again, all this is in just ten
lines:

1) Curs Off : Flash Off : Double Buffer : Autoback 0 : Hide :
Randomize Timer : Dim M(21,21) : R#=1.45 : H=19 : W=68
: E=160 : F=104 : Pen 14 : Paper 0 : Colour 1,\$CB2 : For

I=2 To 13 : Colour 1,14-I : Next : Do

2) D=5 :

3) Repeat : T=D*70-198 : Z=0 : P=4 : Inc D : For J=1 To D :
For I=1 To D : M(I,J)=0 : For K=0 To 3 : If(((K=1 and I<D)
or(K=2 and J<D)) and Rnd(1)) or((K=0 or K=3) and
Btst((K+2) mod 4,M(I+(K=3),J+(K=0))))

4) Bset K,M(I,J) : End If : Next : Next : Next : X=Rnd(D-
1)+1 : Y=Rnd(D-1)+1 : Repeat : U=Rnd(D-1)+1 : V=Rnd(D-
1)+1 : Until(X-U)^2+(Y-V)^2>(D/2)^2 : Bset 6,M(U,V) :
Repeat : Dec T : A\$=Inkey\$

5) C=Scancode-75 : Add B,(C=4)-(C=3),0 To 3 : M=(B=3)-
(B=1) : N=(B=0)-(B=2) : If C=1 and Btst(B,M(X,Y)) : Add
X,M : Add Y,N : End If : L=(X+M>0 and X+M<=D and
Y+N>0 and Y+N<=D)

6) If C=2 and Btst(B,M(X,Y))=0 and P>0 and L : Bell 1 :
Bset B,M(X,Y) : Bset(B+2) mod 4,M(X+M,Y+N) : Dec P :
End If : Bset 7,M(X,Y) : Clw : For J=4 To 0 Step -1 :

Q#=R#^(4-J) : P#=R#^(5-J) : Y1=H*Q# : Y2=H*P#

7) Y3=H*R#^(4.5-J) : Ink 2*J+5 : Bar 0,F+Y1+1 To
320,F+Y2+1 : For I=-2 To 2 : I#=-I-0.5 : X1=W*Q#*I# :

X2=W*Q#*I : X3=W*P#*I# : U=X+M*J-N*I : V=Y+M*I+N*J

8) If U>-1 and U<D+2 and V>-1 and V<D+2 : If

Btst(B,M(U,V))=0 : Ink 2*J+3 : Bar E+X1,F-Y1 To

E+X1+W*Q#,F+Y1 : End If : If Btst(7,M(U,V)) : Ink 15 :

Circle E+X2,F+Y3,Q# : End If : If Btst(6,M(U,V)) : Ink 1

9) Polygon E+X2,F+Y3-20*P# To E+X2-13*P#,F+Y3 To

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```
E+X2+13*P#,F+Y3 : End If : If Btst((B+3) mod 4,M(U,V))=0
: Ink 2*J+2 : Polygon E+X1,F-Y1 To E+X3,F-Y2 To
E+X3,F+Y2 To E+X1,F+Y1 : End If : End If
10) Next : Next : Print At(0,0);"Maze:"+Str$(D-5)+
Score:"+Str$(S)+"Time:"+Str$(T/2)+
"+String$("*",Min(P,6)) : Add P,T/33-(T-1)/33 : Screen Swap
: Z=Btst(6,M(X,Y)) : Until Z or T=0 : If Z : Bell 40 11) Wait
50 : Add S,T*2 : End If : Until T=0 or(Z and D=20) : Clear
Key : If Z : A$="Finished!!" : Bell 63 Else A$="Out A Time!" :
Boom : S=0 : End If : Print At(15,11);A$ : Screen Swap :
Wait Key : Loop
```

Yes it is 11 lines but the second wouldn't fit onto the first so we'll let that go, okay?

AMOS PD Update

If you have bought AMOS Pro but are already a member of the club, there is no need to return your rego form to the club as you will already be a member. Those who have never bought AMOS before or have bought the Easy AMOS package, it will be necessary for you to fill in your registration form and send it to: Australian AMOS Club, PO Box 253, Rydalmere NSW 2116. You will receive newsletter issues two to eight, club details and will be entered into the user club. Incidentally we are just creeping over the 2000 members mark.

The club is always on the lookout for new programs, articles and comments from AMOS users. If you submit a program, you will receive back a PD disk from the AMOS Public Domain Library (now around 700 disks) and your disk will be placed into the PD. It will also be sent to the British UK AMOS Club as well as the new, German, Belgium, Holland and US Clubs. In other words, the programs you submit will be spread by the Australian based club to all over the world. Give me a call after 2.00pm work days on the HELPLINE: (02) 748 4700.

The Australian PD collection is now up to 143 disks at this time of writing. The British collection is now at 430, while the new General PD section is just on 148 disks.

Final Words

I said last month that AMOS Pro does not support Intuition. I guess I was wrong. Well, sort of. Have a look at the following bit of code:

```
Dim WINCON(1)
_WINDOPEN[1,0,0,640,256,"Test Window",0]
_WPRINT[1,"Hello. This is your first DOS window!"]
Wait 150
_WINDCLOSE[1] Amos To Front
Edit
Procedure
_WINDOPEN[N,X,Y,XX,YY,NAMES,CL] ... ..
```

The last line above is the procedure that contains a program to do the actual calls. So in reality, using a simple procedure like the one above, you can call libraries and use Intuition very easily. Till next year! □

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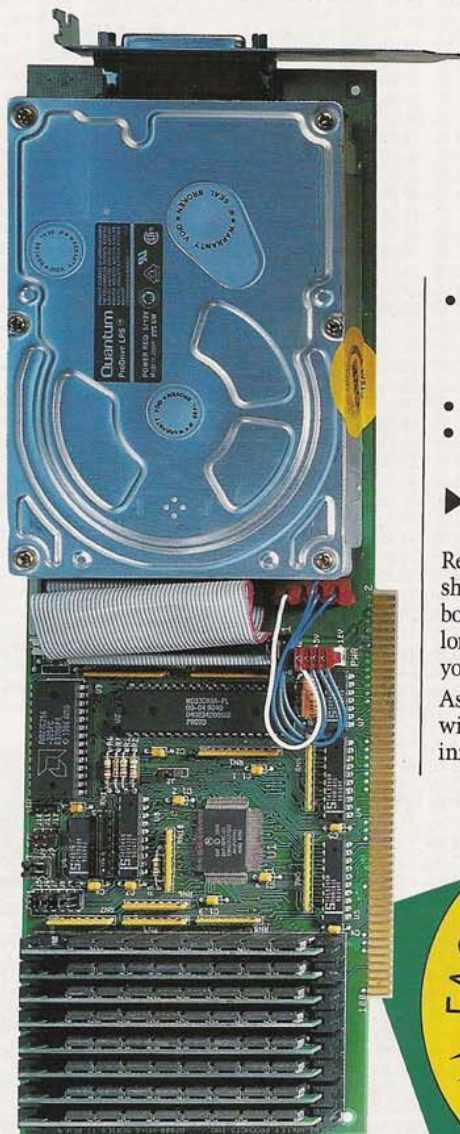
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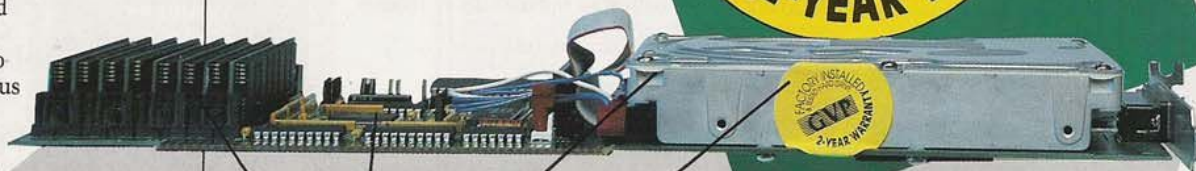


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You Can CanDo

Tutorial No. 9 - Getting Reports from the Database

by Greg Abernethy

Firstly, I apologise if November's tutorial seemed a bit disjointed as I had a problem with a text file and did not realise until after I had sent the article to ACAR. Also, I have had some enquiries from CanDo users who are using CanDo V1.02 that appeared as a coverdisk on *Amiga Format*.

Unfortunately, my articles are written using CanDo V1.5 and are not compatible with V1.02. Apparently the coverdisk had very little information on how to use CanDo effectively. If you can afford it, upgrade to V1.6 as this is a far better version. CanDo V1.6 can be obtained from Frank Keighley of Desktop Utilities in Canberra. Frank has limited supplies as CanDo V2.0 is due for release and should be in Australia during November. Watch for a full review of CanDo V2.0 soon. From reports I have read it sounds great, and the manual has been completely rewritten, with a host of new commands available.

Last month, we created a DATABASE to store information on LPs, cassettes or CDs. With the database we could enter details of the album title, the artist, the record company, and the serial number. The information could then be saved to disk and reviewed, added to or edited at a later date.

Unfortunately there was no way to view such things as all records by an artist or artists belonging to a certain record company. This month we will design a reports page to enable us to access and retrieve information from the database in a meaningful form. The page will contain some fields for entering information, buttons for selecting options and a document for displaying the requested information.

I have not worried about doing anything fancy with the page, as it has been designed solely to demonstrate how to use CanDo's database commands to retrieve information from a database.

Designing the Report Page

Creating the Window

The Reports window will be a medium-resolution window with four colours, that has three fields, four buttons and a document.

WINDOW DETAILS

WINDOW NAME "Database Reports..."
 WINDOW DIMENSIONS X - 0 Y - 0
 Width - 640 Height - 256 4 Colours
 WINDOW OBJECTS NONE
 WINDOW COLOURS Background 0 Border 1 Text 0
 WINDOW OPTIONS The window has visible borders. Try to open the window on the current screen

CARD DETAILS

CARD NAME "Report"
 AFTERATTACHMENT SCRIPT

```
DisableObject "Artist"
DisableObject "Company"
WorkWithDocument "Report"
Clear DOCUMENT
SetText "Message","Select a REPORT OPTION"
```

Explanation: When the Report Page is displayed I disable the Artist and Company fields, clear the Report Document and type a prompt into the "Message" field.

BUTTONS

The Database Report page has four buttons. Their details are;

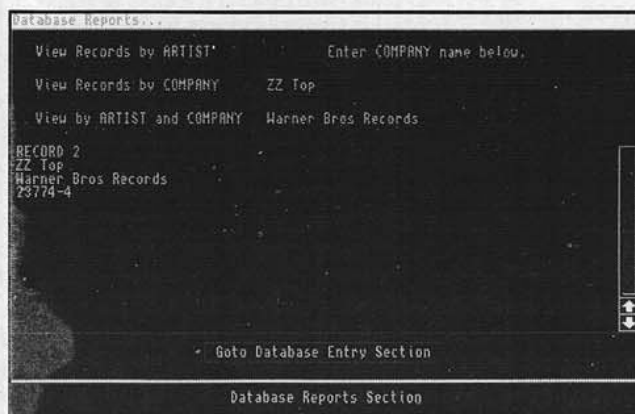
```
1) BUTTON NAME      - "ViewArtist"
ORIGIN              Horizontal - 17  Vertical - 19
TEXT                - " View Records By Artist "
BORDER              - OUTLINE
HIGHLIGHT           - COMPLEMENT
"Release" Script
Let Option = 1
SetText "Message","Enter ARTIST'S name below."
EnableObject "Artist"
SetText "Artist",""
SetObjectState "Artist",ON
```

Explanation: I use the variable "Option" to determine the information required by the user. Next, I type a prompt into the "Message" field. The "Artist" field is then cleared, and a cursor highlighted in the field ready for information to be typed in by the user.

```
2) BUTTON NAME      - "ViewCompany"
ORIGIN              Horizontal - 17  Vertical - 39
TEXT                - " View Records by Company "
BORDER              - OUTLINE
HIGHLIGHT           - COMPLEMENT
"Release" Script
Let Option = 2
SetText "Message","Enter COMPANY name below."
EnableObject "Company"
SetText "Company",""
SetObjectState "Company",ON
```

Explanation: The explanation for this script is similar to the previous explanation.

```
3) BUTTON NAME      - "ViewBoth"
ORIGIN              Horizontal - 17  Vertical - 59
```



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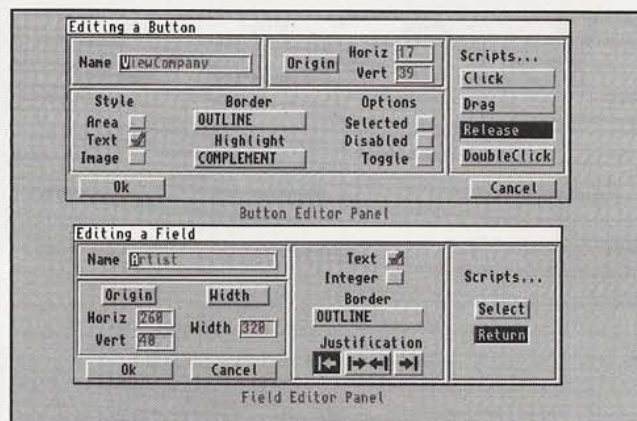
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TEXT - " View by ARTIST and COMPANY "
BORDER - OUTLINE
HIGHLIGHT - COMPLEMENT
"Release" Script
Let Option = 3
SetText "Message", "Enter ARTIST'S name below."
EnableObject "Artist"
SetText "Artist", ""
SetText "Company", ""
SetObjectState "Artist", ON

Explanation: This explanation for this script is as above, with the exception that I clear the "Company" field as well, ready for user input after the Artists information has been entered.

4) BUTTON NAME - "Entry"
ORIGIN Horizontal - 198 Vertical - 199 TEXT
- " Goto Database Entry Section " BORDER - OUTLINE
HIGHLIGHT - COMPLEMENT
"Release" Script
GotoCard "Entry"

Explanation: The user selects this button to return to the Database Entry Section.

FIELDS

1) FIELD NAME - "Message" ; Field for entering user prompts
ORIGIN Horizontal - 260 Vertical - 20
BORDER - OUTLINE
WIDTH - 320
JUSTIFICATION - Centred
No Script
2) FIELD NAME - "Artist" ; Field for entering the Artist's Name
ORIGIN Horizontal - 260 Vertical - 40
BORDER - OUTLINE
WIDTH - 320
JUSTIFICATION - Left
"Return" Script
Let ToFind = TrimString(TextFrom("Artist"))
Let s = 1
If Option = 1
WorkWithDocument "Report"
Clear DOCUMENT
Loop
Let s = SearchArray(Database, ToFind, ".Artist", s)
If SearchFound
Type "RECORD"!!Is, NEWLINE
Type Database[s].Artist, NEWLINE


```

Type Database[s],Company,NEWLINE
Type Database[s],Serial,NEWLINE
NewLine
Let s = s + 1
EndIf
Until Not SearchFound
Elseif Option = 3
SetObjectState "Company",ON
EndIf

```

Explanation: This script performs a search of the database for the record entered into the field and is activated by the user pressing RETURN. It is important for the user to press RETURN otherwise this script will never be performed. Firstly, I trim any excess spaces from the string entered into the field. You may laugh, but I have seen one person press the spacebar before entering information, thus giving the string a leading blank, making it impossible to do a search on the word entered.

The variable "ToFind" contains the string from the "Artist" field. I set the variable "s" to one to start the search at the first record in the database. If Option = 1 it means the user wants to see the records for a particular artist. I clear the document to remove any information in it, and begin the database search.

The Search

Array command is very powerful but can be confusing. Examine the command above. It states;

```
Let s = SearchArray(Database,ToFind,".Artist",s)
```

This command tells CanDo to search the variable "Database" for the string "ToFind" in the subarray called ".Artist" starting from record "s". After the database is searched the variable "s" will contain the number of the record that has a match in the specified subarray. If no match is found the variable "s" will be set to 0. In this way we can determine if a matching entry is found and also the record number of that entry. The information for that record can then be displayed in the document.

I then set the variable "s" to the next record in the database otherwise the loop will continue to find and display that record and will carry on indefinitely. When developing, the StopCanDo utility comes in very handy in these situations. The loop continues until the search finds no more entries that match the string. This is checked by the SearchFound function which you can use to determine the search has reached the end of the database. If the search has found any matches they will be displayed in the document. If Option = 3 we set the cursor in the Company field ready for user input.

```

3) FIELD NAME - "Company" ; Field for the Record Company's Name
ORIGIN      Horizontal - 260   Vertical - 60
BORDER      - OUTLINE
WIDTH       - 320
JUSTIFICATION - Left
"Return" Script
Let CoFind = TrimString(TextFrom("Company"))
Let s = 1
If Option = 2
WorkWithDocument "Report"
Clear DOCUMENT
Loop
Let s = SearchArray(Database,CoFind,".Company",s)

```

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Please supply copy of receipt of purchase

HOT PD

Almost free, very available, and arriving in droves - Daniel Rutter brings us up to date with the latest in Public Domain, Shareware and other similarly styled programs.

It's been a good month for freely distributable software. As I write the Fred Fish PD library has gone past 740 disks and isn't showing any signs of slowing down, and Amiga FD software libraries still charge less than half as much as IBM libraries per kilobyte of software. We've got the right computer, folks!

Adventure Update

The game that gave its name to a whole genre, the antediluvian *Colossal Cave Adventure*, has been available on the Amiga for a while now and the latest version, 1.10, is an excellent implementation of the original 350 point version, which runs in an Amiga CON window and hence gives full command history under WB2. It runs fine under 1.x as well, and it's STILL a great game today - if your imagination is up to providing graphics!

SysInfo

Nic Wilson's excellent ShareWare system information program has had a major update, to v3.01. This latest version looks quite different from previous incarnations, and features a complete listing of all system libraries, devices, resources, ports and tasks, an elegant bar graph speed comparison, full support for the brand new

Advanced Graphic Architecture (AGA) machines and too much other stuff to mention here. Every Amiga should have *SysInfo*.

CheckDrive

Here's one for the hard disk users. Have you ever rebooted, or had a massive crash, right in the middle of a write to the drive? The partition you were writing to will try to validate while your startup-sequence is running and as a result many moons will pass while you wait for your system to boot - I've had a good ten minutes!

CheckDrive is a simple program which you insert into your startup with arguments telling it which partitions to check. It looks at these partitions, and if they're still trying to validate it brings the startup to a shuddering halt until they've finished. Simple and useful - but you'll need Workbench 2 to run it.

TWC

Most modems these days are capable of what's called full duplex operation - they can send and receive simultaneously. But until recently there's been no way for Amiga users to make use of this feature - the IBM world has the BiModem proto-

col, but although there's an Amiga BiModem library I've not seen it implemented anywhere yet.

TWC stands for *Two Way Chat & Send*, and it allows you to hook up via modem with someone else running *TWC* and transfer files both ways - while chatting via text sent with the file data! It's a beta version and hence still a bit buggy, but it seems to work and is well worth a look. *TWC* requires WB2.

Unfortunately, the author specifies no profit may be made from *TWC*, so it will not appear in most PD libraries. Another one for those of us with modems - which in this case at least should be the only users interested!

While we're on the subject of comms, Fred Fish *AmigaLibDisk 729* contains the confusingly titled *BBBBS*, or *Baud Bandit Bulletin Board System*, v5.4. I'm no sysop but I've given it the once over, and seeing as everything except the "door" programs in Rexx is completely public domain, I think it merits a mention.

Features include up to 99 file libraries with extended filenotes, up to 99 fully threaded message conferences, number of users, files, messages, etc. are only limited by storage space, controlled file library and message conference access for users and sysops, interface to extra devices like CD-ROM and others, all treated as read only, complete Email including binary mail, and multiple forwarding, user statistics including messages written, files uploaded or downloaded, time, etc, plus much more. Cute, eh!

ReOrg

After you've been using a disk for a while, be it hard or floppy, it'll get frag-

SysInfo

SYSINFO v3.01 An Amiga System Information Program written in Assembler Nic Wilson Software P.O. Box 1164 Toowoomba Qld 4358 Australia			
SYSTEM SOFTWARE INSTALLED		IC DEVICES	
input	FAST RAM 58020010C V37.12	MEMORY AVAILABLE	
randrive	FAST RAM 58020010C V37.13		
trackdisk	FAST RAM 58020010C V37.19		
console	FAST RAM 58020010C V37.157		
scrw8	FAST RAM 58020010C V1.8		
clipboard	FAST RAM 58020010C V37.4	TOTAL FREE CHIP 782000	
BaudBandit	FAST RAM 58020010C V1.4		
SPEED COMPARISONS		INTERNAL HARDWARE MODES	
DRIVES	744	CLOCK FOUND	COPYBACK N/A
A500 - A600 STD	1.26	AGNUS EX3 1 NEG	INS.CACHE N/A
B2000 EXTRA RAM	1.06	MODE PHL	INS.BUSET N/A
B2000 GVP A3001	0.12	DEISEST0 8362	DAT.CACHE N/A
A2500 A2620	0.36	CPU 68010	DAT.BUSET N/A
A3000 25MHz	0.16	GPU NONE	RAMSEVER N/A
PP&S MERCURY 040	0.88	MMU N/A	GARY REVA N/A
CPU MIPS	0.77	VBR \$805FC00	DMAC TYPE N/A
FPU NFLOPS	N/A	NHZ 7.89	CARD SLOT N/A
CHIPRAM vs A3000	0.24	NHZ2. KHz 15.68	VERT. Hz 58
		ELOCK Hz 789379	SUPPLY Hz 58

TWC

TWC v1.00 Nov Chat & Send ©1992 by Lutz Vieweg
TWC Command Panel

Send File Ring Other Hang Up ATA ATD Modem Chat

Abort Reception Abort Sending

Received/Remaining: 0 / 0 Total cps: 0 Sent Out/Remaining: 0 / 0 Outgoing cps: 0

Welcome to TWC release 1.00beta compiled Mon/Sep 22 15:29:04
TWC is freely distributable as long as no money is taken for it
serial.device unit 0 opened at 19200 baud

COPYING.LIB: 25 265 24-Oct-92
TWC: 149 736 24-Oct-92
TWC.doc: 19 439 24-Oct-92
TWC.dot.info: 039 24-Oct-92
TWC.info: 1 858 24-Oct-92

Pattern: W?

Drawer:

File:

OK Volumes Parent Cancel

mented, with bits of files all over the place. Optimisers improve disk performance by sticking fragmented data back together and using a few other tricks to speed access. *ReOrg* is such a program, currently up to v2.33 and requiring Workbench 2 (yes, I am trying to make a point here folks), and despite hiccups on some machines seems to do its job quite well. On mine, older versions of *ReOrg* piled up disastrously immediately upon commencement - fortunately without damaging anything; the current version works perfectly but crashes as soon as it finishes optimising! Still, it's worth a shot - but DO back up first, when using this or any other optimiser. *ReOrg* is ShareWare.

CycleToMenu

WorkBench 2 has many benefits. One of the features of the new interface are "cycle gadgets", buttons whose text changes every time you click them. These little gizmos are great if there are only a few choices, but if a programmer goes overboard and puts in 152 it gets deeply irritating to have to click or shift click for half an hour to find the option you're after. *CycleToMenu* is a WB2 commodity which turns cycle gadgets into menus when you click them - and they still work normally if you only click the little arrow on the side. Simple and foolproof, and it makes life a bit easier.

FMSDisk

I quite often compile disks for PD libraries. Doing so is made a lot easier if you have a "fake" floppy disk to work with on hard disk or RAM, as you can juggle all the bits around much faster without endless drive grinding. Until recently the only way to do this was to make a recoverable ram disk of 80 cylinders using the Old File System, which worked fine but vanished when you turned the machine off, or to make a dedicated tiny hard disk partition the same size, which is a waste of RAM since it's always mounted and no use for anything else.

FMSDisk gets around this by making a large file which behaves like a separate Trackdisk device, and need only be mounted when you need it. You still lose around 900k of HD space, but my 200Mb can handle it. It gets a respectable 63%

of HD speed despite the track/file translation, and is easily 15 times faster than floppy on my machine. As I write this I'm putting together the companion disk via *FMSDisk*; it's great!

Under WB2 I was unable to format a *FMSDisk* device, but it formatted fine under WB1.3 and now works perfectly under 2. One of life's little mysteries.

Flying Toasters

Anyone who's ever used a Macintosh will have seen *After Dark*, the versatile screen blanking utility with 101 different ways to prevent monitor burn (not really a problem with colour monitors anyway but don't tell 'em). The most famous, and least comprehensible, of these blankers is the unforgettable Flying Toasters, which are now available as a stand alone WB2 screen blanking commodity. They're only black and white, but they still produce much confusion when they flick on; great fun!

A brief point I'd like to make about *Toasters* involves this little snippet from the manual: "FT is Public Domain. This release includes binary and source files. Do anything with it you want but ..." The author goes on to list a load of conditions, to which I've adhered, but technically since he declared it to be public domain none of them are binding. Public domain software has NO copyright, and NO restrictions of ANY sort on its distribution or use can be enforced. Plainly that's not what the author meant, but to all the freely distributable authors out there - if you want to make conditions, don't say PD.

MegaD

If you're after a powerful directory utility with magnificent documentation at a bargain basement price (PD!), give *MegaD* on Fish 736 a look. It uses an unconventional multi-window approach, like the ancient *Browser*, but is much more powerful, comprehensively documented and - well, listen to this:

"A directory utility with multiple directory windows so you may copy from multiple sources to a single destination, copy from one source to multiple destinations, or copy from multiple sources to multiple destinations. Full font support, full screens support, application icons,

application menus and application windows support. Includes 126 page tutorial and 47 page user guide. Other features include 72 user defined command gadgets with simple keyboard equivalents, and multiple filters on directory listings."

I've not played much with *MegaD* since I'm a happy and registered user of Chris Hames' *DirWork*, but it looks very impressive - particularly for the money!

SnoopDOS Update

An invaluable utility for serious Amiga users. It deals with that horrible situation where something just doesn't run, and refuses to tell you why. One way to find out what this program's trying to do is to use *WhatIs* (see below), but the best technique is to run *SnoopDOS*, which will open a window or log file and show everything that's happening in your system; you can see what fonts, devices, libraries or other stuff the program's hunting for and whether or not it found them. *SnoopDOS* is also great for tracking script files that don't give output and may or may not have hung, and I find new uses for it all the time. It makes life much simpler, and Eddy Carroll deserves a medal for writing it.

WhatIs

This useful little utility's been updated to v2.5, with various extra file types recognised and a few bugfixes. It will tell you what sort of data or program file something is, and will also hunt through the program and find a lot of internal data about resources the program needs. *WhatIs* requires WB2.

MultiAssign

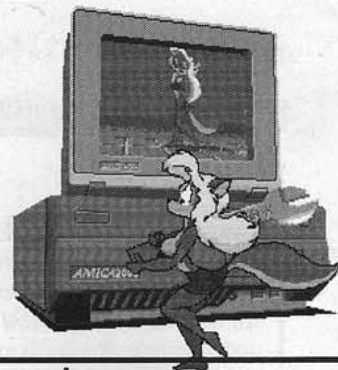
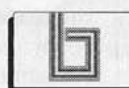
Hard disk users tend to have assigned devices all over the place - I've got 30 of them and I know people with plenty more. Floppy users tend to use fewer, but due to the slower medium even a few assigns can take ages, even if you make *Assign* resident. *MultiAssign* deals with this problem (as long as you've got WB2) by reading a load of assigns from a data file and doing them all in one hit. Does it make a difference? Well, from a list of 1000 identical assigns, *Assign* made resident gave 55.84 seconds on my 68010 machine; with *Assign* running from HD



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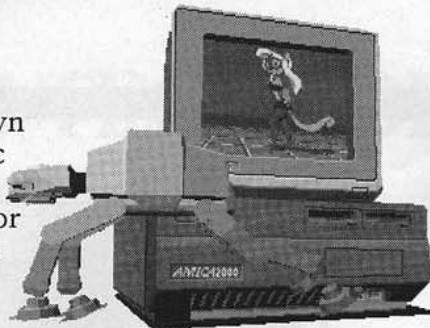
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it blew out to 3:08.60. *MultiAssign* did it in 22.94. Any questions?

AIBB to 4.65

Amiga Intuition Based Benchmarks is the standard Amiga benchmarking program, used to figure out how fast your machine is at various tasks. The latest version, 4.65, incorporates Kickstart 3/AGA support and a couple of bugfixes to make it even more accurate - so all those Amiga 4000 owners out there are catered for! Curiously, *AIBB* still runs fine on WB1.3 machines - unless you've got a 68040 CPU.

BootX

The best PD virus killer available, has now been updated to v5.20, with LOTS of upgrades from v5.11. The most drastic change is full Workbench 2.1 and 3 support, which entails recognition of the new Kickstart 3 bootblocks, Locale support for foreign language users, AmigaGuide support for documentation (a particularly nice feature) and more, not to mention piles of bugfixes (which implies piles of bugs, but don't tell).

Workbench 1.x users have been left out in the cold. To keep up with the increasing sophistication of the efforts of the brain damaged virus authors, the *BootX* Recog file, now up to v1.71, has had its format changed and will only work with *BootX* 5.2 or later; since no *BootX* since 4.5 has supported WB1.x, you've got another reason to upgrade!

BootX is STILL the easiest to use virus killer in the public domain, and easily equals any commercial effort; get wise, get *BootX*!



BootX

In Reflection

Looking back through this column I notice I've not hit any great PD games over the last month - there have been a few little Workbench time wasters but nothing awesome. Well, to make up for it, keep a look out for the playable demo version of *Pinball Dreams II*, which is freely distributable and gives you one of the PBDII tables and infinite balls. *Dreams II* is quite like I, but slicker and faster; this demo version's a killer. Unfortunately, it's also way too big to fit on the companion disk. (See end of article.)

You'll also get good FD entertainment from the demo disks for *Blitz Basic II*, which contains fairly average games and a really good version of *Defender*, one of Andrew Farrell's favourites which got an enthusiastic thumbs up in the editorial office, where he continued playing through a couple of phone calls. If you've never played *Defender* you're in for a treat; if you were weaned on the multi-buttoned arcade machine you'll love it.

Makecash Warning

Over the last couple of months I've seen a file called MAKECASH.TXT wandering around various bulletin boards - you know the type - "Make \$50,000 in a month!!". I believe this little message, the author of which I've deleted to preserve his dignity, should cool the ardour of any potential millionaires: Re: Make Cash letter. To BBS members, associates, and general users, I am deeply sorry about the interruptions and mayhem that I have caused with this stupid letter. It has been pointed out to me that this letter is indeed illegal in Australia, but is not in America. I was not aware of these kinds of letters, and in my ignorance and gullibility I thought that these letters were legitimate, and could actually work. I hope to end this topic here and now, as I have learned my lesson with various BBSs restricting my access, and many offensive letters towards myself, which I deserve of course. So, as I said before, I am sorry, and will get rid of this letter, so that it will not and cannot be uploaded again ... Clear?

The companion disk for this column is available from Prime Artifex as Hot PD 4, and you will find just about everything listed, except for stuff that for-profit libraries aren't allowed to distribute and *BootX*, which proved too big and will be available on a dedicated disk from all good PD libraries. To fit all the stuff on I've had to archive it all, but every program's in an individual archive so people without hard drives won't have to wrestle too much with LhA and its confusing command structure. □

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The C64 Column

by Owen James

Public Domain Update

This month we'll be taking a look at some of the more recent public domain software titles to become available for the C64. The following titles were supplied with thanks to Brunswick Publications.

Future Noter - Brunswick disk #133.

Future Noter would best be described as a word processor and demo maker rolled into one. Similar to the very popular *Future Writer*, *Future Noter* allows you to construct and present animated pages of text. Once you have selected your accompanying soundtrack and written your text, *Future Noter* will compress and save the file as a stand-alone module that can be executed just like any other program.

It's not quite as feature-laden as the original *Future Writer*, although this version does allow you to position up to eight animated sprites on each page of text. The animations you can choose from consist of everything from spinning disks to a hyperactive duck! Certainly one way to impress your pen friends.

Dir Master - Brunswick disk #120.

Dir Master allows you to perform many weird and wonderful activities on your disk directories. Options for sorting directories, deleting files, inserting lines in the directory, unscratching files and many other functions are provided. As usual with these types of programs, it's always best to experiment on backup copies of disks first.

RAM Disk - Brunswick disk #128.

Adds a RAM disk to C64s without the need for an REU. Like a regular disk, you can load, save, delete and list the catalogue of files in your RAM disk, the advantage being that access to the files is virtually instantaneous. Useful if you would like to keep several small utilities on hand when coding programs etc. Recommended.

Scriptease V3 - Brunswick disk #129.

Scriptease is a simple 40 column word processor. Perhaps its most valuable feature is its huge text buffer, allowing you to edit articles of around 1,200 lines. My main criticism is the lack of a word wrap feature, which makes it a bit of a struggle to re-read your text. Still, if you're after a program that can handle large quantities of text then this program is probably the go. *Scriptease* is fast and simple to use, and also has a 65,000 word dictionary available for \$US9.95 direct from the author.

All of the disks mentioned here are available for \$5.00 each from Brunswick Publications. Postage is free and there are no membership or joining fees. To order, or for more information, write to Brunswick Publications, PO Box 458, Bondi Junction NSW 2022.

MAIL

C64 to PC Transfer

Roger Coles, of Wollongong NSW, writes: "Dear Owen, I'm writing to ask whether you know of any software

which would allow file (ASCII) transfer from a C64 to a PC via serial communication? Alternately, is it possible to find a DOS utility for a PC which will read Commodore (1541) floppy disks on a 5.25" drive? I would be extremely grateful for any help with this enquiry, as I have a large number of my own BASIC program source code listings which I want to transfer, modify and run on my PC."

OJ: There are several options for transferring ASCII files from the C64 to a PC platform. The first is via a null-modem cable. This will link the serial ports of both machines and allow transfer in much the same way as if the connection was via modem. You may have to get a cable custom made for this purpose.

If you have a modem and a telephone line available for each machine then transfer via this method is also available.

If you're intending to transfer BASIC programs, then something else you'll need to be aware of is that Commodore BASIC attaches a two-byte load address to the start of programs, which can cause some problems. Something else to be aware of is that the C64 doesn't use ASCII by default. It instead uses its own variation known as PETSCII, so you'll need a way to translate files to pure ASCII before they can be of much use in the MS-DOS environment. I don't know of any software for the PC that will read 1541 disks. Alternatively, there is a company that will transfer C64 files to either an MS-DOS, AmigaDOS or Atari format 3.5" disk and take care of all the necessary conversions. Your files will need to be as clean as possible, that is they should contain few or no control characters, and you'll need to state which output format you require. C64 BASIC programs will be output as standard ASCII files for importation into your PC's BASIC editor, where they may need some fairly serious rewriting in order to be compiled and run.

Price is \$4.00 for the first file and \$2.00 for each additional file (minimum \$10.00 per order) and this includes postage, packing and the return

3.5" disk. Add an extra dollar if you'd like the original 5.25" disk returned. You can also send and/or pick up the files via modem.

For more information on this, or translating C64 graphics to IFF, GIF, JPEG or EPS formats, contact Code One Computer Services, 29 Toulon Ave, Wentworth Falls NSW 2782.

Hardware Knowledge and the ZX-81!

John Setek, of Paradise Point Qld, writes: "Dear Owen, my C64 was made in Hong Kong and now it is in need of repair. Can you suggest a repair manual or is there anyone out there interested in the internal workings of the C64 who would like to share his knowledge? Are there any groups interested in the original Sinclair ZX81?"

OJ: Firstly, the only guide to repairs that I know of is the Commodore Diagnostician II, available for \$8.95 from Wilcom Australia. It uses cross reference grids to locate faulty components on C64s and 1541s. For more information contact Wilcom Australia, PO Box 48, Kyneton Vic 3444. Tel (054) 22 3329 or Fax (054) 22 1115. Unless you've had some experience in working with electronics I wouldn't recommend home repairs for anything but the most simple of problems. Best idea would be to take it to an authorized Commodore repair centre.

I'm not aware of any user groups for the old Sinclairs. If anybody out there knows of one, write to John direct at 7 Wills Court, Paradise Point Qld 4216.

Classifieds

Christian McIntyre, of St Marys NSW, gives us this sales pitch: "Attention to all Commodore readers who would like to upgrade to a near new C64! Latest model Commodore C64 - less than two years old. Disk drive, three joysticks, 16 games, 2 word processors (*Paperclip Publisher* and *Word Writer 5*), boxes, mouse, notcher, blank disks, receipts (upon request), cleaning disk and manuals. Everything worth

over \$1000. Must sell urgently for \$450 - \$500. No pirated software! For more details please phone (02) 623 4912 after 3pm. Ask for Christian."

GeoWrite and REU

R Austin, of Umina NSW, writes: "Dear Owen, I recently purchased *GEOS 2.0* and am having trouble getting *geoWrite* to run on the REU. I went through the procedure outlined in the manual for making working copies etc, but found when I boot up with *GEOS2.0R*, *geoPaint* operates okay, but *geoWrite* will not boot up unless I use the *GEOS 2.0* System Disk which is not set up on the REU configuration. I tried to configure the REU on the work disks but it will not bring up the REU and will not let me change the "B" drive or the RAM expansion box.

"I tried copying the Configure file from *GEOS 2.0R* on my work disks but it won't boot *geoWrite* up and tells me to reboot with my original *GEOS 2.0* System disk, which then does not bring up the REU. I tried copying the configure file onto the backup disk but it will not copy on a system disk. Can you tell me how to be able to use *geoWrite* on the REU?"

OJ: Your problem could be one of many things, but to me it sounds like there was an error in the installation procedure. As a form of copy protection, *GEOS* installs applications such as *geoWrite*, *geoPaint* *geoPublish* etc. to work with only one system disk and the backup of that system disk. This ensures that you can make as many backup copies of the applications as you wish, but they will run on only YOUR copy of *GEOS*. If the IDs don't match then it asks for you to boot with the original.

It sounds to me like you have one standard 2.0 System disk, and another setup for your REU. When you installed the REU version, *geoWrite*'s ID was not updated and so will not run with this other system disk. This would explain why *GEOS* asks you to reboot with your original 2.0 disk.

The reason why you cannot copy

the Configure file onto the system disk backup is because there's already a configuration file on there that is protected from both deletion and replacement. To delete any files from a system disk, you must first move its icon to the border area, drop it, then pick it up again and place it in the trashcan.

This two step procedure is just an added protection so that you don't accidentally destroy files from the system disk. One you have done this, you should then be able to move the newer copy of the configuration file onto it. Remember also that you need the version of the Kernal and deskTop designed for the REU in order to take full advantage of it, and this may be another cause of the problem.

Since I don't know your exact configuration, my suggestion to you would be to first check if you have a copy of *geoWrite* that has been installed to work with 2.0R. Your ORIGINAL Applications side of the system disk may have a version of *geoWrite* that will run with the V2.0R system. Try launching *geoWrite* from this original Applications disk and if successful replace the copy of *geoWrite* on all of your work disks with this version.

That wraps up this edition of The C64 Column, the last for 1992. If you have any questions, comments or suggestions drop me a line care of The ACAR, PO Box 288, Gladesville NSW 2111. I'll be back in the new year with all the latest news, views and answers to your questions. Until then, have a safe and happy holiday!

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CDTV

by Phil Campbell

News

New Distributor for Japan World

Melbourne's corporate Multimedia specialists Acumen are the new distributors of *Japan World*, a CDTV title that brings a little bit of Japan to your lounge room. Learn key Japanese customs, words and cultural norms as you browse through this well produced introduction to Japanese life. Designed originally to create a stronger bond between British and Japanese industry, *Japan World* retails for \$199.50. For more information contact Graham Redman at Acumen, (03) 853 6662.

Interplay Authoring System

Optonica Ltd, who claim to be the authors of "the best in CDTV Multimedia production tools", have just released *Interplay*, a system that puts multimedia production into the hands of end users. No programming skills are necessary. The simple "point and click" system allows the production of consumer titles, education, business and industry projects of almost any scale.

A "layered design" allows you to only deal with the level of complexity you need. And you can actually see your production build up before your eyes as you string together your pictures, animations, photos, digital video, text, music, sound effects and narration. "What you see is what you get" previewing reduces the risk of costly mistakes when pressing your production to CD.



Distributed by Don Quixote Software (076) 33 1561. Demonstrations of productions authored with the system are available on CDTV disc or VHS video tape. Phone for more details.

CD-Demos Out Now

You'll never need to buy another "cover-disk" again. (They're the disks full of program demos that inferior UK magazines stick on the front to sweeten the deal - because there's not enough in the magazine itself to make it worthwhile). Again from Toowoomba's Don Quixote Software, the CD-Demo stacks around 600 cover disks onto a single CDTV disk, allowing you to browse to your heart's content.

Commodore Finalise Kodak Photo Deal

In a long awaited agreement, Commodore and Kodak have finalised arrangements for a CDTV add-on that will let you display Kodak Photo-CD pictures on your CDTV. This bodes well for both systems. Kodak's bold Photo-CD initiative - in which your roll of film is transferred direct to CD for viewing via your telly - was much admired, though the need for an expensive Photo-CD reader dampened the enthusiasm of most average consumers. Now, however, it's just one more

reason to buy a CDTV - and an excellent reason to have your next roll of film returned on disc instead of paper.

Did you know ...

Did you know that with a slightly modified printer cable and a copy of the public domain program PARNET, you can link your Amiga and your CDTV, using your CDTV as a CD-ROM drive? Excellent for the new range of "bulk PD" style disks - imagine having every Fish Disk ever released, only a mouseclick away.

Music with Graphics - Full CD+G Listing

Until now, most CDTV users have had trouble finding a supplier of CD+G discs. The few demos we've seen are impressive - you can listen to a CD and watch while graphics and song lyrics are displayed on your TV screen. Now Digital Imports Australia are specialising in CD+G titles. Check out this complete listing, then give them a call on (03) 776 0743, or write to PO Box 945 Mordialloc, Vic 3195.

CD+G titles available:

Alphaville - Breathtaking Blues
Laura Branigan - Laura Branigan
Ella Fitzgerald - Things aren't what they
Flamin Groovies - Groovies Greatest
Fleetwood Mac - Behind the Mask
GRF Digital Sampler - On the Cutting Edge
Emmylou Harris - Pieces of the Sky
Information Society - Information Society
Chris Isaac - Silverstone
Jimi Hendrix - Smash Hits
Little Feat - Hoy Hoy
Little Feat - Representing the Mambo
Gram Parsons - Greivous Angel
Bonnie Raitt - Green Light
Bonnie Raitt - Nine Lives
Lou Reed - New York
Van Dyke Parks - Tokyo Rose
Various Artists - Tribute to Woody Guthrie
10,000 Maniacs - Blind Man's Zoo
Bach - St Matthew Passion

Beethoven - String Quartet #14
 Beethoven - Symphony #7
 Beethoven & Liszt - Symphony #9 in D Minor
 Anton Bruckner - Symphony #9
 Gustav Holst - The Planets
 Gustav Mahler - Symphony #5
 Mendelssohn - Symphony #3
 Mozart - Abduction of Seraglio
 Henry Purcell - Dido and Aeneas
 Beethoven - Diabelli Variations
 Berlioz - Symphony Fantastique
 Domingo Placido - Belcanto Domingo
 Mendelssohn - Symphony #2
 Mendelssohn - Symphony #4
 Mozart - Magic Flute 'Highlights'
 Prokofiev - Peter and the Wolf
 Handel - Messiah Highlights

And finally, for something really fancy, Digital Imports stock a CD+MIDI title, *George Gershwin - Presenting CD + MIDI* that pumps out a MIDI data track to your synthesiser as well as music through your stereo.

FEEDBACK

If you're a CDTV user, why not drop us a line at CD-Feedback, PO Box 23 Maclean NSW 2463.

Handy Tip

Dear Phil, I recently purchased a CDTV, and have found a tip I think your readers may be interested in. If you have your CDTV connected to a stereo, it's possible to re-record normal music CDs with your own beats or digitised speech playing in the background. First, you'll need a sound program such as *Med* or *Pro Tracker*, and then it's simple. You load in your samples or modules, then place your music CD in the caddy, and then into your CDTV unit. Now select the instrument you want to play and also press play on the computer itself. By pressing the keys on the keyboard you'll be able to hear the sound effects

coming through the stereo as well as the music on the CD. You can also have a tape in the stereo to record your result.

I also have a question regarding the CDTV. I've observed that some programs won't load due to lack of memory. Sometimes this can be fixed by taking out one of the external drives, but still about five of my programs won't load. I know it's possible to have a 2 Meg CDTV but no-one seems to know much about it. Could you please tell me if it's available, and if you think it's worth looking into.

Jason A. Rooimans,
Taree NSW

Ed: Thanks for the tips, Jason. For more information about CDTV memory, contact Ian at Don Quixote Software on the number mentioned above. They're hard at work developing memory add-on options for the CDTV, and Ian will be able to advise you on the best upgrade path. □

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Phil Campbell's MEGA Entertainment

All the latest news from the world of entertainment

EA Grabs Gremlin Distribution

In yet another marketing coup, Electronic Arts have snapped up Australian distribution rights for Gremlin Graphics software. Gremlin, based in Sheffield, are currently enjoying UK success with titles like *Zool* and *Lotus III*. Many previous titles are well known, and have gained extensive coverage here at ACAR. Car racing sims like *Lotus I* and *II* and *Toyota Celica Rally* are well known, together with titles like *Hero Quest* and *Space Crusade*. "This new relationship is very positive," says Gremlin's Colin Stokes from the UK. Kevin Davies, Sales and Marketing director of EA, agrees, "We're very pleased to enter into this agreement with Gremlin," he says.

New PD Games Pack From Megadisc

Megadisc's amazingly talented Tim Strachan has just put together another amazingly economical 10 disk pack of public domain games for just \$30. "This is terrific value," said Strachan, in an exclusive phone interview from Megadisc's bustling head office. And I couldn't agree more. Phone him on (02) 959 3692.

ACAR Hints Disk Offer

Stuck in a game? Frustrated? Check out our two official ACAR Entertainment Hints and Tips Disks. They're both packed with handy hints and tips for all the most popular Amiga games. *The Secret of Monkey Island* is revealed, we'll give you all the training you need to win at *4D Sports Boxing*, we'll help you save the day at *Austerlitz*



- and *Leisure Suit Larry* finally gets his girl. So how do you get it? Just follow these simple instructions ...

1. Into a large envelope, place a blank Amiga disk for each disk required. Please don't forget to do this!

2. Add a cheque or postal order for \$5.00 per disk. Specify in a short note

which disks you want.

3. Now get another large envelope, address it to yourself and put on a stamp. Fold this envelope and place it in the first envelope.

4. Post it all to Phil Campbell, PO Box 23 Maclean NSW 2463.

5. Sit back and relax. Your disk will arrive within a week!

Risky Woods Coming Soon From EA

I've just checked out a non playable demo of EA's new *Risky Woods*, a nifty multi-level parallax scrolling masterpiece. The main character is a large, well animated sprite. He's armed with all sorts of throwing and shooting things. Enemies look particularly mean.

Mindscape October Winners

Back in October we asked you to tell us the sports represented in *California Games II*, and suggest some outlandish ideas for *California Games III*. The four lucky winners are ... Nathan Salt, Hobart Tas, Andrew Smithers, Greenwith SA, for the particularly inspired suggestion of COW BOUNCING! Diego Barros, Mulgrave Vic, Marc Walters, Edgeworth NSW.

Congratulations, and thanks to Mindscape for the prizes.

Mindscape December Competition

Cuter than *Lemmings*? Sounds impossible, but that's what they're saying about *Troddlers*, the latest "save the little guys" offering from Mindscape. And they're right. The gameplay is just as puzzling as *Lemmings*, with a simpler control system - that makes saving the *Troddlers* all the more brain stretching. Here's your chance to win one of five copies!

What do you have to do? It's simple. The first three level access codes from the game are

NO SWEAT, QUARTET and SPHINX. Mix up the the letters, and then make up as many new words as you can. Each letter can only be used once per word. Prizes will go to the five longest lists of genuine words.

Send your entries to Mindscape December Competition, c/o Phil Campbell, PO Box 23 Maclean NSW 2463. For ease of sorting, please write your name, address, and **WORD TALLY** on the back of your envelope.



Entertainment Letters

Send your entertainment letters, cries for help, useful tips and other fun stuff to the Entertainment Mailbox, c/o Phil Campbell, PO Box 23 Maclean NSW 2463.

Squeamish about Beamish

Dear Phil, I need help in *The Adventures Of Willy Beamish*. I know you've done a review on it. Can you help? The part I'm up to is the bit with the blood-sucking vampire baby-sitters. I can get the vacuum cleaner and wave it at the batty beast, and I found out how to bring a target up. But when Will thinks "What can I use for bait?", I use the jar of flies. But what happens? I get carried skyward!

Michael Seymour

Ed: Sorry, Mike, I didn't get that far with Willy! But I'm sure there's a helpful reader out there just itching to send us an answer. Stay tuned.

Un-Entertaining Questions

Dear Phil, I have a lot of questions I would liked answered, so here I go:

- 1) Is there a ROM drive that also writes?
- 2) What are optical or floptical drives?
- 3) How do they work, are they as fast as a hard drive?
- 4) Also are they really CDs inside a 3.5 inch floppy disk casing?
- 5) Does the AI program called *Eliza* exist on PD. If so, how much and where from?
- 6) How can I design fonts, vectors, bobs and sprites for *RSI DemoMaker*?

Thank you for reading my letter and hopefully answering my questions

Raphael Cendrillon
Gold Coast, QLD

Ed: Here's another one of those letters from someone who just doesn't understand the difference between the Entertainment section and the business end of the magazine. So read my lips. This is the FUN end of the magazine. While you're here, *Eliza* is a pretty boring program available from

any good PD collection. Try Prime Artifax. Floptical disks are NOT really CDs inside a 3.5 inch floppy casing. They're 3.5 inch magnetic disks with a laser tracking "groove" that keeps the disk perfectly aligned so more data can be squeezed onto the disk surface. As for ROM drives that also write, you may be thinking of WORM drives (Write Once, Read Many) that allow you to write to an optical disk's surface once and once only. Now wriggle off to the other end of the magazine.

Pirate Scuttled

Ahoy Matey, Me name is *?&\$# - or I'm otherwise known as CHAOS, WIZKID or Mr X. So mate, I've written to say I'm currently king of the sea of piracy. Having cracked, hacked and distributed over 500 games. Time to leave now as its time to work out which trading ship or software house to raid next.

Chaos

Ed: Mmmmm, cute. This letter arrived on a tatty piece of half burned paper in very dramatic style. And it's very mysterious, I'm sure. However, with the aid of a little expert handwriting analysis, I've managed to establish exactly who sent it. After all, sending another letter from the same post office on the same day with the same handwriting isn't all that smart. So, Raphael - um, I mean, Chaos - you'd better be careful. The next knock on your door could be from your friendly local policeman. (By the way, stealing software is NOT smart.)

Lance Hero Needs Help

Dear Phil, Is there a cheat for *Heroes of the Lance*, if so, please enlighten me. Another thing, is it possible to remove the standard 512K memory and replace it with a 1 or 2 meg chip without paying hundreds of dollars on my Amiga 1000?

Grahame Welsh
Maryborough, Qld

Ed: You haven't given us much information about your problems with *Heroes of the Lance* - it would help if you were a little more specific. As for your Amiga 1000, yes, it is possible to do a cheap memory upgrade. It's called the "piggy back" modification, and it's based on a circuit published in an overseas mag some years ago. Basically, it's a matter of stacking memory chips on top of your existing ones, adding a little extra hardware, and

off you go. Try talking to Chris Ralph in Sydney on (02) 511 050 for more details.

Another Pirate Walks the Plank

Dear Phil, I am 13 years old, in year 9, going to a private school and I feel that I speak for the intelligent half of the Amiga using community. I own heaps of pirated programs for the simple reason that it costs less. Why is this so and why do I feel like the only person standing up for my rights?

Anonymous

Ed: Funny thing - it's always cheaper stealing things than buying them. But that doesn't make it right.

Help Wanted

Dear Phil, Do you or any other people reading this rad magazine know any cheats for *Xenon 2*, *Rainbow Islands* or *Clown-o-Mania*? It would be very helpful. Also on my dad's Amiga 2000 with a 68030 card, when we play two players on *Lotus II*, it hangs at various points. Can you explain? It isn't a copy.

Joshua Stubbings
Carey Bay, NSW

Ed: There have been plenty of tips for *Xenon II* published in the past, as well as *Rainbow Islands*. Maybe your best bet is to order our ACAR Hints Disks! As for the *Lotus* bugs, sounds like the program doesn't cater too well for the '030.

Eye Problems

Dear Phil, I was recently given *Eye of the Beholder* for my birthday, and have been playing madly ever since. Unfortunately, maps for the first three levels only come with the game and the spiders on level four are really kicking my butt! Are there any hints for this rad game on the hints disk? I hope so. I'd also like to congratulate all the people involved in bringing out ACAR each month. It's far and away the top magazine for Amiga users and best of all it's Australian!

Brett Wallace

Ed: Thanks for the high praise! Yes, there is help for your *Eye* trouble on the hint disks. Why not order them?

Mail Order Problems

Dear Phil, Could you please also help with a problem regarding mail order PD software which was advertised in your August issue? I ordered some software from

Don Quixote Software, Toowoomba, and I didn't get a reply from them. So I ordered again thinking that it took more than one month to receive my order, and the second order hasn't arrived one more month down the track. What on earth can I do? Could you please help me get the software, as with my small income I can't afford to be treated like this. Did I send it to the wrong address, because the two addresses in the August and the October issues were different. If there is a honest bloke out there that can get me the software with no problems could you forward the address to me.

Matt Lowe
Dinnmore, Qld

Ed: The blokes at Don Quixote Software, like their namesake, are very honourable. So something must have gone wrong with your order. Why not phone Ian Grieve direct on (076) 331 561? I'm sure he'd be happy to help out.

Boulder Dashing

Dear Phil, I have been playing *Boulder Dash* and came across a cave with only boulders. They say to get 99 diamonds. How do you convert boulders to diamonds?

Mrs S. Symonds
Toowoomba, Qld

Ed: Aw, gee, I dunno. *Boulder Dash* is older than my grandfather! Maybe there's

somebody out there with a long memory who can help you out.

Cop This!

Dear Phil, I would like to ask for help in *Police Quest 3*. Is there anyway of printing the case and suspect files on the computer? I am up to Day five and I cannot find anything to do or anywhere to go. Is there anyone who can put me out of my misery?

Julien Skyworth
Yana Glen, Vic

Ed: Sure. I'll send someone round with a .45 Magnum. Or alternatively, we'll try to find you some help. Stay tuned.

ENTERTAINMENT & HINTS & TIPS

Amiga Hints and Tips

From the depths of Juris 'The Prophet' Graney's drawers comes this multitude of hints and tips for your Amiga. Below are also a few Action Replay codes for some classic games - so read on! (If you've got any hot hints or tips, send them to Juris at 41 Cameron St Maclean NSW 2463!)

Arkanoid II: Revenge of Doh

Before starting a game press the CAPS LOCK key and type 'DALEY88' for infinite lives, or on the title screen type 'PETEJOHNSONWANTSHEAT' (no spaces and no caps lock) and pressing 'S' in-game will open the exits.

Astro Marine Corp

The level codes are:
NOSTROMO
DISCOVERY
ENTERPRISE
DAGOBAN
REPLICANT
KRULL
METROPOLIS

Beach Volley

In-game type 'DADDYBRACEY' (no

space) to activate the cheat mode. Pressing F1 in-game will advance you a level.

Beverly Hills Cop

On the screen displaying difficulty selection for the game type 'MELLIE', you can now access all the games.

Car-Vup

On the high score table type or enter your name as 'R.J.TOONE' for infinite lives.

Cybernoid II: The Revenge

On the title screen type 'NECRONOMICON' (no spaces) for infinite lives.

Dogs of War

Before starting type 'TIMBO' then press F5 for infinite lives. Pressing F5 again turns the cheat on/off.

Dyter-07

When the games loading screen appears, type the word 'GIBB'. In-game pressing 'W' gives you extra weaponry; 'S' replenishes your shield; and 'L' skips the level.

Fenandez Must Die

In-game pause the game and type 'SPINYNORMAN' (no spaces) for infinite lives.

Fighter Bomber

To access any mission simply enter the pilot's name as 'BUCKAROO', then proceed as normal.

Gauntlet II

When you get the "Locked treasure chests can insert helpful items" message find a key and a locked treasure chest. Hold down 'INSERT' when you open the chest. Release 'INSERT' and hold the joystick down. Now the help key will give you 5000 health points.

Hard Drivin'

Choose manual gears and when at full speed change back into neutral gear. You cannot skid and you should not blow up from collisions. This will also work for *Hard Drivin' II: Drive Harder*.

Hammerfist

Enter 'TAEHC OT TNAW' (with spaces) into the high score table, and in-game pressing 'F7' will advance you one screen at a time.

Nitro

Enter your name as 'MAJ' then you will be awarded 5000 fuel points and 50 coins.

Peter Beardsley's International Soccer

Continual tapping of the fire button while in possession of the ball prevents any other players from tackling.

Test Drive II: The Duel

On level two type 'BRULE' to make the road signs change.

Thunderblade

Type 'CRASH' on the high score ta-

ble, then in-game pressing 'HELP' advances you a level.

Viking Child

All the codes for the game are listed below:

- Level 1: IMAGITEC
- Level 2: JOJOSM
- Level 3: GUSTAVUS
- Level 4: NINJADL

Weird Dreams

In-game, in the hall of mirrors. stand halfway through anyone and tap out 'SOS' in morse code with the 'HELP' key. That's dot-dot-dot, dash-dash-dash, dot-dot-dot.

Also from the same person as above Juris 'The Prophet' Graney, a few Action Replay cheats which will help you improve your chances of finally getting to see the end of that awfully hard game ...

- Apprentice - TFD 01C358
- P47 - TFD 009337 or 009336
- Horror Zombies from the Crypt - TFD 042DA
- Zirix - TFD 000316

- Bubble Bobble - TFD C09FFE
- Toki - TFD 023CD9
- Pegasus - TFD 01A002
- Jim Power in Mutant Planet - TFD 0005AB

Formula One Grand Prix

Driving Ace Craig Perrett has contributed the following tips for mastering *Formula One GP*. "These are just a few items of interest which will (hopefully) assist in the setting up of competitive cars for each of the 16 circuits in this game," says Craig.

First, set the brakes on a forward bias of 16. As far as tyres go, in a full-length race D-compounds will normally not need to be changed more than twice, and often need only to be changed once. C-compounds should usually need to be changed only once.

Car set-ups which I have found to be the best are as follows:

Circuit	Wing Setting	1st	2nd	3rd	4th	5th	6th
USA	35	16	24	32	41	50	60
Brazil	20	16	24	33	43	54	65
San Marino	25	16	24	33	43	54	66
Monaco	64	16	21	28	34	41	49

Canada	30	16	24	33	42	52	62
Mexico	35	16	24	33	43	54	65
France	20	16	24	33	42	52	62
G. Britain	40	16	24	33	42	51	61
Germany	10	16	26	36	46	57	69
Hungary	55	16	23	30	37	45	54
Belgium	20	16	25	34	44	55	67
Italy	20	16	25	35	45	55	66
Portugal	45	16	24	33	42	52	62
Spain	35	16	24	33	42	52	63
Japan	25	16	24	33	42	52	62
Australia	25	16	24	33	42	52	63

NOTE: These set-ups are optimized only for driving without automatic braking. The computer is very conservative in its braking judgement, resulting in less than ideal performance using these set-ups. The first-gear setting of 16 is essential for a quick start, as this is one of the few times first-gear is used.

Different qualifying set-ups may be used, with a top gear of 1 or 2 levels higher than race set-up. These set-ups are ample for beating even "Ace" level opposition convincingly (assuming you can stay on the track for a prolonged period of time - this merely comes down to practice).

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MICHAEL SPITERI'S

Adventurer's Realm

Ho! Ho! Ho! Santa Claus here with Christmas Greetings to all jolly adventures and roleplaying gamers from around Australia and beyond! Have you been good boys and girls? You have? Well, you know what happens to bad kiddies, don't you? - they spend all the days and nights of Christmas stuck in some unforgiving adventure game.

However, if you have really been good and have purchased this wonderful magazine and read the best part first ... no, not Phil's entertainment section ... keep reading, ah, of course, *Adventurer's Realm* - then you will be gifted with free hint sheets from Lady Santa and many hints and tips from these pages and from the Clever Contacts scattered like snow all over the nation. Well, did you remember



to write to Santa? You didn't? Well, here's the address where you can tell Santa all your problems and woes, and also what you'd like for Christmas ... *Adventurer's Realm*, 12 Bridle Place, Pakenham, Vic 3810.

Of course, Santa cannot handle all the mail by himself, so he has asked the wise elf Kamikaze Andy

to look after all those letters about role playing games. The address of his cave is ... *Realm's Dungeon*, PO Box 1983, Canning Vale, WA 6155.

Santa will be very cross if your letter arrives without a stamped addressed envelope. In fact Santa sometimes gets so cross he rips the letters to shreds and he writes your name in his little black book of naughty boys and girls.

Adventure Swap & Buy

On the subject of old games, this is the part of the *Realm* where you can advertise freely your old games to swap or sell, or you can let out a call for games you'd like to buy or swap.

Caroline Africh of 26 Cowl Street, Greenacre, NSW 2190 has *Zak McKracken* for the C64, and would like to swap it for C64 version of *Hitchhiker's Guide*, *Indy*, or *It Came from the Desert*. If nobody wants to swap she is willing to sell it for a reasonable price. Caroline would also like some suggestions for any reasonable adventure games for the C64.

Luke Mortenson of Lot 48 Reid Cres, James Park Estate, Bundaberg, QLD 4670 has for the Amiga *Faery Tale Adventure*, *Imperium*, *Drakkhen*, *Speedball*, *The Immortal*, *Dragon's Lair: Escape from Singes Castle*, *Stellar Crusade*, *Deja Vu II*, *Starglider*, and *Double Dragon*. Luke will swap his games for ... *Leisure Suit Larry 5*, *Dragon Ninja*, *Death Knights of Krynn*, *Dark Queen of Krynn*, *Bloodwych*, *Captive*, *Elvira*, *Gauntlet III*. He will also take offers on his games, but only at a sensible price. Luke is also after a working TV adapter for the Amiga 500.

Jolly Good Adventure Books

Ski down to your local newsagent mums and dads, and pick up the second Official *Adventurer's Realm* Hint Book, aptly titled *Computer Adventure Games: Hints and Tips*. It contains hints and tips for over 25 different adventure and roleplaying games, including *Kings Quest V*, *Space Quest IV*, *Spellcasting 101*, *Larry 2 & 3*, *Codename Iceman*, *Beyond Zork*, *Bards Tale* series, plus much more. Priced at only \$10, it's perfect for shoving down stockings (make sure you take them off first, though). Look out for the chubby green dragon on the front cover.

The first Official Hint Book is still available by dropping a line to us here at the *Realm*. Send a cheque for \$9.00 to receive a book containing hints and tips for over forty games. The address to write to is *Realms First Hint Book*, 12 Bridle Place, Pakenham, Vic 3810.

Free Hint Sheets

Mrs Santa has piles upon piles of hint sheets to give away this Christmas, so select up to four from the list below and enclose a stamped addressed envelope and send it to:

Free Hint Sheets, 12 Bridle Place, Pakenham, Vic 3810.

Corruption, *Pool of Radiancy*, *Zak McKracken*, *Maniac Mansion*, *Zork I*, *Zork II*, *Zork III*, *Bards Tale I*, *Bards Tale II*, *Bards Tale III*, *Guild of Thieves*, *Jinxter*, *DejaVu*, *Uninvited*, *Pawn*, *Hitchhikers Guide*, *Faery Tale*, *Borrowed Time*, *NeverEndingStory Pt1*, *Dracula Pt2*, *The Hobbit*, and the Clever Contacts Listings.

Important note! Get your requests for the above hint sheets in now, because in January a lot will drop off, and a new series of hint sheets will be available. This is your last chance!

Adventure Chat

Stuart George of Springvale Vic has a lot to say this month, so let's get him over and done with, eh?

"I'm just writing to inform you that I actually managed to finish the *Hulk* in less than 10 minutes, and was disappointed by the ending. I couldn't tell if I had finished it or not. I collected all the gems and obtained a 100% score, I didn't know what else I had to do so I wandered around all the 10-15 locations and eventually typed SCORE. And for all those two word parser problems I got a password that I have no idea what to do with and a Congratulations you have finished. Was it worth it? I would say no!"

Mike: Now, hold on ol' chap! I'm sure if you had been playing this game when it was first released (about eight years ago!) you would have been quite impressed when comparing the game to the others on the market. The *Hulk* was one of Scott Adams' first graphic game releases, and made quite an impact on the adventure playing market with its good graphics! Scott Adams adventure

games appealed to those who loved lots of problems but didn't like the idea of exploring hundreds of locations. Anyhow, that password would have got you into the next super hero installment, which I think was *Spiderman*. However, Stuart's letter isn't over yet.

"I would like to give my opinion of the state of adventures these days. I hate Sierra's new point and click interface, it just makes the game finish a bit quicker. Whatever happened to being original! All we see now are sequels, sequels, sequels, *Ultima 7*, *Eye of the Beholder*, *Spellcasting 301*. While they are all great games, I would still like to see new and original ideas that are not RPGs. How about Darkseed for something new and original?

"In the end I suppose it all comes down to the book and movie industry as to the future of adventure games. We've seen B movie conversions of *Hook*, *Robin Hood*, *Spiderman*, *Hulk*, *Simpsons*, *Ninja Turtles* etc. The age of adventures has passed but they will stay for good. The age of RPG's is just beginning, as well as the 'I'm too stupid to string words together to form sentences, I just click

an icon, the game does the rest!' age of gaming. Hopefully, with the re-release of Infocom's greats other companies might re-release the old classics."

Mike: Alas, another adventurer lamenting the death of the good old adventure game era. You could blame Commodore and Microsoft for their demise, for people nowadays only know how to use icons to get around their computers (thanks to Workbench and Windows). Take the Macintosh for example, the only historic adventure game it played host to was the icon driven *DejaVu*! It was inevitable that this trend would cross to adventure games.

Yes, I too miss the days of Infocom with their classics like *Deadline* and *Zork*, and with the above mentioned Scott Adams and his plug in text adventures for my now deceased Vic-20. I too cursed Sierra for switching to icon control, but that's the way the cookie crumbles, folks. Still if there are any of the older generation adventure gamers that remember the good ol' days then write in with your memories, and we can start the Sergeant Peppers Lonely Hearts Club for Adventure Games.

Problems, Problems & more Problems or the Troubled Adventurers Dept.

"Help! Help! Help!" writes Matthew Hawkins of Whyalla Stuart in SA. He is desperately stuck in *The Colour of Magic*. After struggling for two weeks he has finally made it to the *Temple of Bel Shamharoin* but whatever move he makes he ends up being killed!

Matthew is also having problems saving *Hrun the Barbarian*. Any hints and tips for *Valkyrie 17* would not go astray, as Matthew seems stuck in the hotel.

Daniel Hill of Albany in WA recently purchased *Rise of the Dragon* and was doing quite well until he attempted to sort out the plugs in the Vidphone trunk in the sewer near Johnny Qwong's house. Can anyone help Daniel?

Aaron Danks would like any help in *Colonel's Bequest*. Also *Police Quest 1*

and 3 (try the Realm's first hint book, Aaron!). Also, any help in *It Came from the Desert*, and making money in *SimCity* and *Ports of Call* would be greatly appreciated. You can write to Aaron at 196 Shaftsbury Avenue, Bedford, WA 6052.

Keith Mackinlay of Davidson in NSW sent in an alarming letter regarding his problems in *Ultima V*, sacrificing quite a lot for an answer to his problem. He has destroyed the shadowlords, done all the dungeons, and collected quite a handful of items. All he has to do now is go to the Underworld via Shame and follow the instructions. However, Shame's first room is blocked! Using the sceptre outside the dungeon has no effect.

Andrew Smithers would like some help in the game *Mystery of the Mummy*. He has read the manual but hasn't got the foggiest of what to do! Where is he supposed to go? How is he supposed to get a newspaper? Every shop he has been to has been shut. Any help in this game would be greatly appreciated.

Rhonda Toms of Redbank Plains in Qld is after general playing hints for *Not A Penny More, Not a Penny Less*, and

also for *The Sydney Affair*. For the latter, the instructions tell her to type in codes to access information from other police stations, but everything Rhonda tries doesn't seem to work. Any takers? My memories of *Not A Penny More, Not A Penny Less* are that is quite a nasty game.

Caroline Africh would like help in the games *Time Tunnel* and *Murder on the Mississippi*. Enough hints to get her started would go a long way.

Stuart George asks the following questions ... In *Sorcerer of Calymorgure Castle*, how can he stop being killed by the dragon after he pushed the floor, and how can he enter the fountain without being killed by the water. Then in *Buckaroo Banzai*, he cannot find the bauxite (Mike: Try pulling the line on the ledge!), and how does he open the safe under the table (Mike: You need the key in the envelope near the car - turn on the flashlight and press the switch). Then in *Fantastic Four* (Mike: Gee, Stuart likes these Scott Adams games!), how does he get the Thing free from being stuck in the caverns under the tar pit. Stuart is also stuck up to his neck in *Time Quest*.

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Help, Help & more Help or the Smart Adventurers Dept.

No help has been received in the Realm regarding people's problems, so instead I'll run a number of hints from the Second Adventurers Realm Hint Book ...

Leisure Suit Larry II

- You'll need a flower from the jungle.

- Wait for table, but don't hang around. Grab a knife and vanish!

- Make sure you are protected and nourished when floating around.

- Waiter! There's something in my gravy!

- Maybe you should leave the plane ... using the back way.

Space Quest IV

- Search the Sequel Policeman after he drops.

- The bubble gum is more than just bubble gum.

- Click on the empty spaces to get the rest of the code.

- Need a power pack for the pal? Check out the bunny.

- Feed the monster one of those cylin-

ders.

Kings Quest V

- Pay a visit to the toy shop once you have the puppet from Grandpa Gnome.

- A temple can be found at an opening in the cliffs.

- To pass the snake, you'll need something from your visit to the Gypsy.

- To join Cedric, use boulders as stepping stones.

- The leg of lamb looks pretty scrumptious, so have a nibble before feeding it to a hungry bird.

Battletech

- Civilian clothes might get you out of a dangerous situation.

- Leave your mechs outside and enter the cave on foot.

- Certain computer terminals contain secret codes.

- Enemy groups only have rifles... compared to your infernos.

- Made sure you have a good medic and a good tech in your team.

Labyrinth

- Be generous to the beggar and he will be generous in return.

- If the door is slightly overgrown, give it a snip.

- The right door is important, if you can get him to talk.

- Deal with Firey with the camcorder.

- The leg will get you across the bog, or ...

- Trouble with the bridge? Ludo is the fellow to see.

Clever Contacts

Make sure you purchase next month's ACAR for a complete listing of the nation's Clever Contacts. A new Clever Contact hint sheet will also be made available next month.

This month, a couple of updates to two current Clever Contacts.

First up, Stuart George of 68 Sharon Road, Springvale, Vic 3171 can offer help in the following games ... *Pool of Radiance (+ maps), Zak McKracken, Fish, Guild of Thieves, Police Quest I, II, Larry I, II, III, Wasteland, Ultima III, V, VI, Uninvited, Questron II, Sherlock Holmes Crown Jewels, Champions of Krynn, Maniac Mansion, Corruption,*

Beyond Zork, Space Quest I, II, Gold Rush, Eye of the Beholder, Hulk, Manhunter New York, Wizardry IV, Never Ending Story, Bards Tale I, II, III, Wonderland, Jinxter, King Solomon's Mine, Kings Quest II, III, V, Colonel's Bequest, Spellcasting 101, Spiderman, Battletech and Plundered Hearts.

Caroline Arlich of 26 Cowl Street, Greenacre, NSW 2190 can offer help in *Maniac Mansion* and *Zak McKracken*.

When writing to a Clever Contact, make sure you always enclose a stamped addressed envelope large enough for your request, and make sure you supply some money for printing costs. Finally, a big thank you to all out Clever Contacts for doing such a great job.

Special Feature



Myth - Full Solution

Yes folks, Jesse Ahern explodes the fabulous Myth, one of the top games of '92. Follow his blow by blow description and you can't go wrong.

1. Hades - Realm of the damned.

First of all, you must kill an Imp to acquire some fireballs. These make it easier to kill the skeletons. Once you have the fireballs, knock off a few skeletons until one of them leaves behind a sword. Pick it up and activate it. Now head over towards the top right of the screen to the hanging skeleton. Cut his chain so he falls to the lower level. Make sure you have plenty of fireballs left, and follow him down. You will find the skeleton rising from the ground. Chop his head off (hold down the fire button and push the joystick into the top-right hand corner) so that it lands in the fire pit.

Now Satan should appear and release

a demon. Run back to the ledge at the left and wait for it. When he appears, shoot the fireballs at him. If you run out, you will have to kill another Imp for more. When the Demon is dead (he takes about five hits), he will leave the Trident. Pick it up, but don't activate it. Now go back up past where the skeleton was hanging and continue to the right to the Chimera.

Select the Trident and press fire. The Chimera should go up in smoke and you can now pass.

Go right, killing or jumping over skeletons on your way, and go down the first hole and collect extra energy. Be quick, as they disappear. Now go back up and exit Hades to the right.

2. Skyros - Isle of the Sirens.

Kill or jump over the Greek Warriors and run left until you near the Siren. Stop, and only inch closer when she commands you to. She will then ask you

to kneel - do this and you will receive extra energy. If you go too close, though, she will transform into a dragon and kill you.

Once past the Siren you will come to a warrior statue. Chop at his rear heel until he collapses, and then you can take the shield. Activate it, and the Warriors will kneel before you. For some extra points, you can hit them with the shield on your way out.

3. Temple of Athenae

Jump from platform to platform to the right, avoiding the Stone Warriors. Kill some Imps if you need more energy. Soon you will come to Medusa; activate the shield and hold it out. She fires in a pattern - one bolt followed by three bolts. While deflecting her bolts, put the sword in the middle, ready to activate. After

GREEK WARRIORS- They run onto screen and attack you. Take about 5 chops to kill, or one head chop.



SIREN- Beckons to you. Do just as she says, and she may give extra energy. But if you go too close, she will change into a Flying Beast and kill you!



Skyros

Hades

IMP- Small, speedy and saps energy quickly, but takes only 1 hit to kill. Gives fireballs or energy.



SKELETON- Slow, but can still inflict damage. Takes around four hits to kill, one if beheaded. Will give sword.



DEMON- Can only be hurt by fireballs. Takes around five hits. Gives trident.



three bolts, leap over and select the sword in mid-jump. Quickly chop her head off before she fires again. Now pick up her head and take it right. Soon you will hear the Hydra; it's a good idea here to kill some Imps ready for the fight. Select Medusa's head, and jump onto a platform near a Hydra-Head and fire. They take around seven shots each to kill. After you kill one, go back for some more energy before tackling the next one. Once all heads are no more you will be transported to the next level.

4. MAELSTROM - Gateway to the North.

You start on a ship during a storm. A silhouette of a bird can be seen over to the right of the ship. Select your sword

GOBLIN- These small creatures hop towards you, stopping to shoot arrows. Killed with one hit, they give daggers.

FIRE SPRITES- Use torch to kill them & rescue girl.

GOLEM- Big beasts, can't jump over them. Around five hits to kill with normal weapons, three with goblin daggers, one with Magic Sword.

DRAGON- Fire breathing and fireball shooting. Can only be killed with Magic Sword and about three daggers.



Nidhogg

and behead some Viking Warriors until you get a BattleAxe. Use this on the Vikings until the bird takes flight. When it dives at you, chop at it until it drops a coin. Pick this up to get to the next level.

5. Forests of Nidhogg

Use your sword to kill a Goblin to start with, and take the daggers which it drops. These are good for killing the Golems. Keep heading right, killing Golems and Goblins until you came to a girl being burnt at the stake by four Fire-Sprites. Grab the Torch and burn the sprites until they are no more.

Beware of them flying at you and draining your energy. When the girl is free, she gives your energy back and leaves a Magic Sword. Take this and head right, killing more Golems and collecting daggers from the Goblins.

Soon you come to a Dragon. Use the Magic Sword and head-chop at its neck until a gash appears. Now run back and throw a few daggers at it. It will die, and a platform will appear to take you to the next level.

6. ASGARD - Domain of Odin

Run to the right, leaping to the next platform. Be quick, as plants grow from the platforms and fire bullets at you. Small dragons may appear also; kill these for extra energy and daggers. Keep heading up the screen to the right. Thor, God of Thunder may appear at some stage, either shooting lightning bolts at you or disrupting the platforms, causing you to

fall through. (Ed: Douglas Adams fans may be disappointed to note that Thor isn't carting around a Coke machine!) Just keep heading up. You will soon reach a drawbridge in the castle from which a Warrior appears throwing an axe. Jump above him and onto a platform which is level with the Eye and throw daggers at it until it is no more. Now drop down to the drawbridge and throw daggers at the Warrior until he dies. Grab the energy he releases. Now head up and

to right until you come to a second drawbridge, and repeat the actions you went through with the first one. When the sec-



Medusa

MEDUSA- Use the shield to deflect her beams, then use your sword to relieve her of that horrible head!

ond warrior is dead, Thor appears and carries you into the castle to Odin.

He will shoot fire at you which turns into dragons. Kill them for energy and daggers. Soon, Thor will reappear. Jump onto a platform near him and throw daggers, while dodging his lightning. Keep this up a few times, and Odin will attack you himself. Jump up to a high platform when he stops shooting, and launch daggers at him. He will give in and release you.

7. Valley of the Kings

You start outside a pyramid with Asps on the

platforms shooting at you. Kill the Asps and enter Door B (refer to the map of the pyramid). Now, you must face the traps in the hallway. When the axe has swung down to the left, run up the first lot of steps and jump over the spike at the top. Now jump as far as possible as to not activate the up-thrusting spike. You will land on or near a pressure-switch that brings a rotating axe down from the roof. Do a small jump up and land on the switch again to take the axe back up. Now go up the second lot of stairs until you come to two spikes. When one is down, run in between them and wait until the second one has fallen before you cross. Now grab the Blue Eye and return the way you came.

Back outside the pyramid, enter Door C. After some more trap dodging in some more hallways, you will get to the next level.

8. Chambers of Anubis

When you start the level, two Egyptians approach. Kill them with your sword, and one will drop an Ankh. When you collect it, you can use this on any Ankh patterns in the wall to replace energy. Now head right until you come to a jar. Smash it and collect the idol from it. Now keep heading right, and go up the first set of platforms. A Pharaoh will walk toward you, shooting laser bolts. Stay down on the top platform until he is near, then jump up and kill him. Collect his head-dress, and now you can shoot lasers. Continue right until you find another jar. Smash this one and collect the object.

Asgard

LITTLE DRAGONS- One hit to kill. Beware of fiery breath. Gives energy & daggers.

PLANT- Kill with a head chop. Dispatch quickly or jump over, bullets sap your energy fast.

THOR- Can appear any time. Will shoot lightning bolts at you or disrupt platforms, causing you to fall through.



Go back down to the first level, then down again into the Mummies' lair. You can kill them with the headdress, or just jump over them. Go to the left of the corridor and smash the next two jars and collect the idols. Now go to the other end of the corridor (jumping over the set of spikes), and smash the jar to collect the final idol.

Now return to the first level and go right, jumping over the next two holes. The Protector of Anubis will now be there, so kill him with the headdress. Now select and activate the Ankh, then go right until you come to the Ankh Symbol in front of Anubis. Stand in front of it; the Ankh Symbol on the wall should be pulsing with energy. Duck while Anubis is shooting, and put the Blue Eye in the middle, ready to select. Now stand up, hold down the fire button and hold down the space bar. A blue laser should hit Anubis. Keep button and space held until he is dead. Collect the object he gives, and you will have super-jumps. Jump up the platforms and out of the door above to the Pharaoh's Tomb.

9. Tomb of the Pharaoh

You will start in a room with a coffin. Nearby are four shelves with a Pharaoh's Head in between. You now have to place the four idols on the shelves in the correct order. This is a case of trial and error - just jump up onto a shelf and select an idol to put on the shelf. If it's the wrong idol, it will

appear down under the coffin and the Pharaoh Head will shoot at you. Quickly jump down to the idol and pick it up, and the Pharaoh will stop shooting. Now, try it on a different shelf. If the idol is placed in the right spot, a fire will light, and you can put another one on a different shelf.

Once all the idols are right, you can run to the right of the screen where a huge Egyptian mask stands. A beam of light will shoot from the coffin to the Mask, and now you can fly. Shoot at the mask, dodging the fireballs it shoots. After sev-

EGYPTIANS- Take about 4 hits to kill with the Magic Sword. Beware of their sharp knives!

MUMMIES- Take about the same amount of hits as Egyptians. They drain energy quickly.

PHAROAH- Shoots energy bolts from headdress. When killed he will give the headdress.

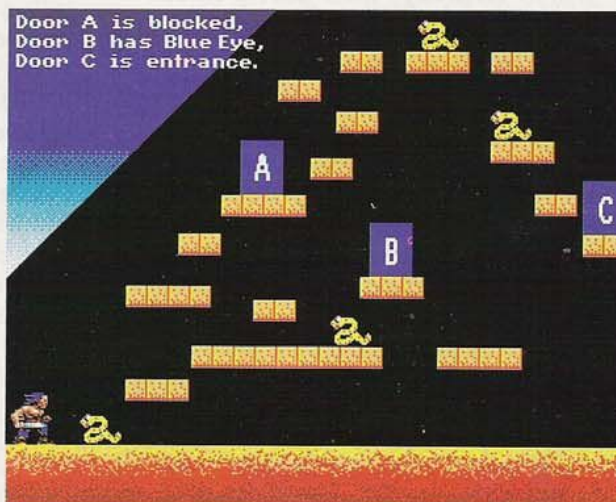
PROTECTOR- Guard of Anubis. Takes 3 hits to kill with the headdress. Beware of beams!

ANUBIS- Use the Ankh with the Blue Eye to kill him. Duck to avoid the blue lasers he fires.



Anubis

waves of Alien attacks, the last level will load.



Pyramid

eral shots, the mask will explode and you'll enter the next level.

11. The Final Confrontation

Dameron appears in all his glory and fires black holes at you with his eyes. Use your Super-Fireball weapon and aim at one of the five heads on his skull, and you should remove one of them. Now, small fireballs fly from the hole where the head was, so dodge them while shooting at the other four heads.

Once all the small heads are removed, the target is Dameron's eyes. They now shoot huge fireballs at you, so you must dodge them while shooting. Use the Multi-Fire-

ball weapon here, so that you don't need to keep pressing space all the time.

After about ten shots, Dameron will burn up and explode, meaning that you have saved the Earth and its history! Sit back and enjoy the cool end-sequence. Congratulations!

Send us Your Full Solutions on Disk

Yes folks, we'll pay real money for solutions like this! Just send them in on disk, and if it's up to the same class as Jesse's *Myth* solution you could earn some big bucks - as well as instant fame. Send your efforts to Phil Campbell at PO Box 23 Maclean NSW 2463. Any diagrams must be included on the disk. □

Chaos

JELLYFISH ALIEN- Take 1 hit. Attack in swarms, just shoot or dodge.

SPINNER ALIENS- Attack in waves. Just stay in one spot and shoot them all. Take 1 hit.

SPACESHIP ALIENS- Fly on screen in a line formation and fire at you. 1 hit to kill them.

SPIN SHIP ALIENS- Come into the screen randomly at different speeds. Sometimes shoot at you or drop blue mines. Take 1 hit.

DAMERON DEMONS- Zoom into screen at different positions. Just 1 hit to kill them, but their touch is fatal.



10. Realm of Chaos

Waves of aliens approach you now, all you have to do is dodge and shoot them. Refer to the Alien Glossary to see which ones do what. After a few waves are destroyed, they will release an orb. When collected, they will either give you a Shield, a Super-Fireball, or Multi-Fireball weapons. Activate these like normal weapons, by selecting and pressing space. Soon, after several



Do you like running around kicking at things in your pyjamas? Then, says Juris Graney, this game is for you! Come with him to the land of the Rising Sun.

Dan suspected something vile and deeply despicable was creeping over the land of Banzaari. Call him paranoid, but when the skies were covered by a blackness and all manner of indescribable wild and wicked creatures began to ravage the once tranquil land, Dan had a strange gut feeling.

The rest of the civilised folk also knew life wasn't quite going as smoothly as it should. Elders and officials gathered for emergency meetings. After days of intimate discussion behind closed doors, a plan was unveiled.

And that is how the annual Dojo trials were formed. Martial arts students would flock from the remotest corners of Banzaari to enter into combat with each other. The one who emerged victorious would have the rather dubious honour of tackling the source of this overwhelming dark force: Valrog, King of All Evil Things.

As this year's proud and, it should be mentioned, fashion conscious winner of the Dojo trials, you take the role

of high kicking, thumping, pyjama parading Dan.

With all introductions out of the way, *Dojo Dan* is just the same run of the mill beat 'em up. But of course, with all these run of the mill beat 'em ups, the game has its own special attributes and appeal.

In fact, in *Dojo Dan*, your skills will be tested to their very limits. You have to tackle hover boarding, car driving, flying and logic problem solving. Your track through this land is full of potential doom and disaster, though scattered through the land of Banzaari are magical pots which have been left behind by previous village champions on their voyage to destroy Valrog. These usually give extra strength and energy, and may even revive a life. However, some have been tampered with and now have special poisons inside them which kill immediately.

Dojo Dan is pretty easy to get the hang of. Just jump around, avoid all the evil creatures and wherever possi-

FACT BOX

A surprisingly addictive jump-and-slash style platform game with a martial arts theme. If at first it looks a little ordinary, keep playing - it's great.

Ratings:

GRAPHICS:	87%
SOUND:	65%
GAMEPLAY:	90%
ADDICTIVENESS:	92%
OVERALL:	83%

Distributed by Pactronics (02) 748 4700. RRP \$69.95.

ble kill them. On the way to victory collect special items which improve your odds of 'clocking' the game.

But that's not necessarily a bad thing. It's fast, smooth, and lots of fun. The graphics are excellent - well drawn and are excellently animated. The scrolling speed of the game is also good - not too fast and not too slow. Sound, on the other hand, is quite annoying, and hard to come to grips with after listening to Iron Maiden for so long.

The conclusion? Something must be wrong here. The graphics are good, the sound is pretty basic, but the thing is, I can't keep myself away from it. Maybe it's the fact that it contains so much gameplay and it is surprisingly addictive. With twenty cantons to complete, it will take a very long time to get through the game. Each canton has its own guardian which you must defeat before continuing. *Dojo Dan* may seem pretty normal to the naked eye, but when probed deeply enough, the gameplay is booming. So to all those souls which are in need of relief, buy this game and let your inner self flow from your body and into your joystick. Have fun! □



Soccer games come, soccer games go. And they come. And they go. Over and over again. What sets this one apart? Phil Campbell finds out as he kicks off in ...

Liverpool - The Computer Game

Wotsis? Another flamin' pommy football game? *Liverpool - the Computer Game*? What's next? *Aston Villa - The Movie*? Where will it end?

In July, it was John Barnes' *European Football*, a reasonably enjoyable game. Then in August came *Sensible Soccer*, which some commentators claimed would knock *Kick Off* from its perch at the top of the soccer-sim championship ladder. And for September, it's *Liverpool - The Computer Game*. Forgive me if I find it hard to get excited.

Mind you, the opening credits do look rather nice. "You'll never walk alone" - the club theme song - plays wistfully in the background as my Amiga screen displays a potted history of the club. To my surprise, it's genuinely fascinating.

The option screen is impressive too. It's simple, it's businesslike, and moving the little soccer ball around the screen to select your game settings has a strange appeal. You can choose to play a full season, or simply enter the FA Cup competition; you can view the league table; you can set "aftertouch" on or off, allowing you to control the curve on your kicks; and, of course, you can customise your team.

The team selection screen features digitised photographs of the 20 member Liverpool squad, with a "View Info" option for each player providing a potted biography. It's a nice touch - I usually find the selection phase of sportsims dull, but when you have to look the players in the eye and tell 'em they've been relegated to reserve grade it's a different story.

Team chosen, it's time to select a field formation. There are three options; a 4-2-4, 4-3-3 or a 5-3-2. I take the standard 4-2-4, and head straight for the FA Cup. It's round 3, Liverpool vs Grimsby Town; we're playing at home at Anfield. The pitch is wet, and we won the toss - we're playing up the screen.

The deafening roar of the crowd is pierced by the umpire's whistle. Grimsby Town kick off, and play the ball to mid-field. My closest player - marked by a distinct set of red arrows around his feet - moves in for a tackle. The whistle blows again; and I'm awarded a yellow card, twenty seconds into the first half. Disgraceful, I know. And it's the first of many. By the end of the game, four of my players have received yellow cards, and two have been sent off.

The pitch looks great. The screen displays only a small part of the action, with large, well defined players picked out clearly against the lush green grass. They're well animated, running, jumping and kicking with fluid, realistic motions.

FACTBOX

Liverpool - The Computer Game is top fun. Great graphics and good ball control make it Phil's pick of the soccer-sim bunch. Good one!

RATINGS

Graphics	83%
Sound	79%
Gameplay	84%
Overall	82%

Distributed by Mindscape
(02) 899 2277, RRP Amiga
\$69.95.

Scrolling in every direction is fast and smooth, and the overall effect is delightfully realistic. Control switches between players automatically, with your joystick guiding the player closest to the ball.

It's a hard fought match, played over two five minute halves. At half time it's nil all, but after the break, the Grimsby lads lift their game, and score three goals in quick succession. Our biggest problem is lack of teamwork. Most of my guys seem to be in the wrong place at the wrong time - so it's time for some serious training.

I'll be honest. I expected *Liverpool - The Computer Game* would be about as exciting as a bowl of cold porridge. And I was wrong. From the top down, it's a well designed, well engineered game with lots of appeal - easily the most enjoyable soccer simulation I've played in years. □



CRAZY CARS III

Wanna feel the pulsing power of a Lamborghini Countach? Then fasten your seatbelt as Phil Campbell takes you road racing.

If computer games go the same way as "reality television", you'll be driving car racing simulators that feature cars like my 1984 Pajero seven-seater super wagon, complete with meagre four cylinder engine and large box-like body. About as many thrills as an episode of *Real Life* or *Hard Copy* - but ever so "down to earth."

Those days, thankfully, are not yet with us. So when you play a racing sim, you can still thrill to the performance of the fastest and best cars on offer.

Crazy Cars III is the latest in a line of Amiga car-racing simulations that stretches back further than Parramatta Road at peak hour. As the "III" implies, these games are hot property - no sooner has the dust settled on *Crazy Cars II* than the armchair speed-demons are queueing up for a sequel.

This time, you get to sit behind the wheel of a sleek yellow Lamborghini Countach. You'll see it on the screen, as well as on the full colour wall poster in the box.

This is the baby you'll be piloting through all the major cities of America in your quest for fame and fortune. You'll be driving on the illicit Street Racing circuit - highly illegal, but very lucrative. In each city, you'll face off with the three hottest car-jockeys in town. Beat them, and you'll

drive away with a carload of cash.

The menu screen features a relief map of the USA, with major cities like Boston, New York and Nashville highlighted. Choose one with your joystick pointer and you'll see the overall rating of the local drivers, together with expected police activity and weather conditions.

In Memphis, my main opponents are three guys called Lobo, Bozo and Scott. Cute names. Shame about their faces. Lobo looks like Michael Jackson, Bozo is the spitting image of Mr T, and come to think of it, Scott just might be Elvis.

Making money is the aim of the game. You'll need to take calculated risks, balancing your possible prize winnings with the entry fees in each city and the standard of the competition.

In this case, the entry fee is \$2,000, and I stand to win \$5,000 - a make or break proposition. Throwing caution to the winds, I sign up.



FACTBOX

Crazy Cars III is fast and smooth, though the graphics look a little two dimensional. Certainly not a major improvement on Crazy Cars II - though every bit as good if you're looking for more of the same.

RATINGS

Graphics	77%
Sound	78%
Gameplay	72%
Overall	73%

Distributed by Mindscape
(02) 899 2277. RRP \$69.95.

The race begins, and I'm in tenth place. An orange sunset lights up the sky, silhouetting the tall pines on the mountains that line the horizon. No time to admire the scenery - I hit the throttle, climbing to a speed of 272 km/h. With some skilful driving I'm soon in second place, with Lobo's car just up ahead. I grab the lead, then spin out on the next corner. By the time I regain control, I'm back in fifth position - and that's where I finish. Tired, beaten ... and broke.

Crazy Cars III is not a ground breaking game. Graphically, it's not much of an improvement on its predecessor. The cars look a little flat, like two dimensional cut-outs overlaid on the track, and the scrolling backgrounds are a bit "routine." That's not necessarily a criticism - if you're a fan of *Crazy Cars II*, you'll be happy to re-live the experience.

The most important question to ask of any car racing game is whether or not it captures the heart thumping feeling of speed - and this one does. Forget everything else - in *Crazy Cars III* you'll have your heart in your mouth as you duck and weave down the highway with the police on your heels. Much more exciting than a tired old Pajero - and that means it's yet another car racing sim that's well worth a look. □

Hook

This is a game you can really get hooked on - and you can just about guarantee it'll all Pan out in the end, says Phil Campbell.

Last Sunday arvo I nearly took the kids to see *Hook* at the local picture theatre. And who knows, I probably could have even claimed it as a tax deduction. Legitimate research. But - amid howls of protest - I decided we should hook a few fish instead. Back to nature, instead of back to the Saraton.

All of which means, I'm now playing *Hook* - the computer version - without having seen the movie. Sorry about that. You'll just have to bear with me. Mind you, I've seen all the trailers, I've read all the reviews, and my mum used to read me Peter Pan almost every night, so I'm reasonably well informed.

The storyline of *Hook* picks up where the original tale of Peter Pan left off. Peter has finally grown up, and he now lives far away from Neverland in the guise of hard working and respectable Peter Banning. His adventurous past is little more than an ancient dream.

Bad guys, however, never forget, and seldom forgive. Banning's comfortable life is suddenly turned upside down as his old adversary, Captain Hook, kidnaps his children and whisks them away to the Island of the Lost Boys. As Peter, your job is to find the children and bring them home - and who knows, you may even find your lost youth along the way.

The game follows a fairly standard

"action-adventure" format. Everything is mouse controlled; command icons are arranged across the bottom of the screen, and the action takes place in the area above.

Commands are limited - you can "Look", "Talk to", "Pick Up", "Use" or "Give To" - and very simple to use. Click on an icon, like "Pick up", then click on the object on the main screen that you're wanting to grab, and it's added to your inventory.

The scenery in Neverland is lavishly detailed. The township we're standing in is more ship than town - most of the buildings look as if they've been rebuilt from the remains of scuttled clippers. Peter stands mid-screen, waiting for a nudge from my mouse to start exploring.

My standard approach in games like these is simple. If it moves, talk to it. You'll find if you persevere for long enough you'll pick up a stack of handy clues. Mind you, it can be pretty frustrating. I approach a drunken sailor in the "Jolly Roger". There's a range of opening gambits to choose from; lines like "Hi, I'm Peter" or "Hook has kidnapped my children. Do you know where he is?" But no matter what introduction I offer, the response is always the same. "Get lost." It's the same with the pirates in the street. And the fisherman on Dead Man's

FACTBOX

Hook is a fairly standard action adventure game, with good atmosphere, and not too tricky puzzles.

RATINGS

Graphics:	76%
Sound:	73%
Gameplay:	75%
Overall:	75%

Distributed by Ozisoft, phone (02) 317 0000, the Amiga version sells for \$69.95.

Wharf.

Finally, though, I strike oil. First, a nutty doctor who gleefully exchanges my two gold teeth for "pieces of eight." And then a friendly barman. He tells me I'll need some pirates' clothes if I intend to board Hook's ship; and he suggests swinging across the town square on a rope to grab a hat from an unsuspecting head.

Good advice. Mind you, here I am standing on top of a building, rope in hand, watching the perfect hat march back and forth across the screen - and I've got no idea what to do next.

Hook is a pleasant little game, well aimed at the movie's intended audience. The puzzles strike me as reasonably easy, so adult players shouldn't expect a long term challenge. But junior players will be fascinated by the game's bright and busy graphics, the touches of humour, and the tantalising prospect of defeating the dastardly Hook. □



Crime City

Fancy yourself as a bit of a detective? Now's your chance. Sign on with DC Michael Spiteri and pound the beat as you try to save your old man from a bum rap.

David Walker is dead. The culprit? Your father! But how could it be? David was your dad's best friend and police partner for twelve years! All you know is that the two had an argument over something, and the next thing your father, Henry White, is arrested for his murder. It's up to you to do some thorough investigation of your own, and prove to the police that your old man is innocent. So begins *Crime City*, a point'n'click adventure game from the UK.

The game opens in your office. Before you there is a computer (which can be used to dig up information or to simply play breakout!), a telephone, diary, notice board and letter holder. A map on the wall shows all the places you can visit in the town. At the moment you have the choice of the hospital, pub, parents' home, police, church, girlfriend's house, and of course, the scene of the crime. By clicking on the location you travel there by choice of walking, bus, or taxi. Whatever form of transport you select should depend on how much money and time you have to spare.

As you visit each place, you can converse with various people by choosing from a selection of questions and statements which range from the inquisitive "What can you tell me about the murder?", through to the concerned "I'm really worried about my father", through to the silly requests "Can I please have some tea and biscuits?". From talking to various people, appointments get made, more places to visit appear on the map, and you gradually discover more information about the case. You can also explore the various rooms for clues and evidence.

The whole game is played by simply pointing with the mouse and clicking the left mouse button, and doing nothing else. No verbs to choose from, no sentences to build - what you can do has been kept to a minimum in an effort to make the game playable by anyone. Now this is fine, but I love adventure games where you can pick up objects, look at them, manipulate them then throw them through windows when you find out they're useless. I mean, that's what adventure games are all about, aren't they? Not that *Crime City* is not frustrating, despite its simplicity it is still an adventure game. There are still numerous problems to solve and leads to follow.

Graphically the game doesn't break new ground. Despite the character illustrations being very ordinary, the overall presentation is very neat and you don't have to ruin your eyes to decipher various objects. The sound comes and goes as it pleases. One

FACTBOX

Crime City is a simple point and click adventure game - maybe too simple. Graphics are neat, clear, but unexciting, and you could say the same for the plotline.

RATINGS

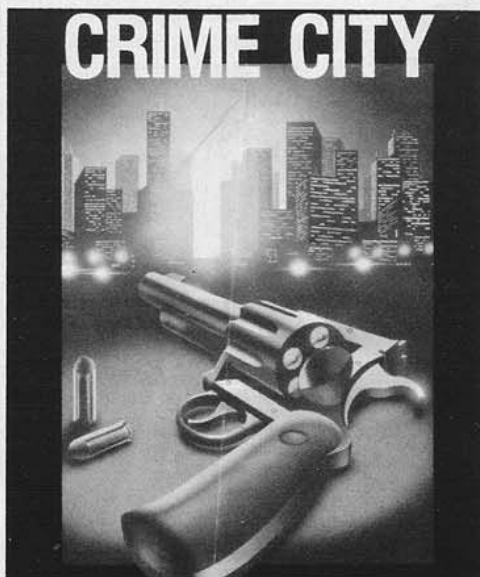
Graphics:	70%
Sound:	30%
Gameplay:	70%
Overall:	65%

Distributed by IF Software.
RRP \$79.95.

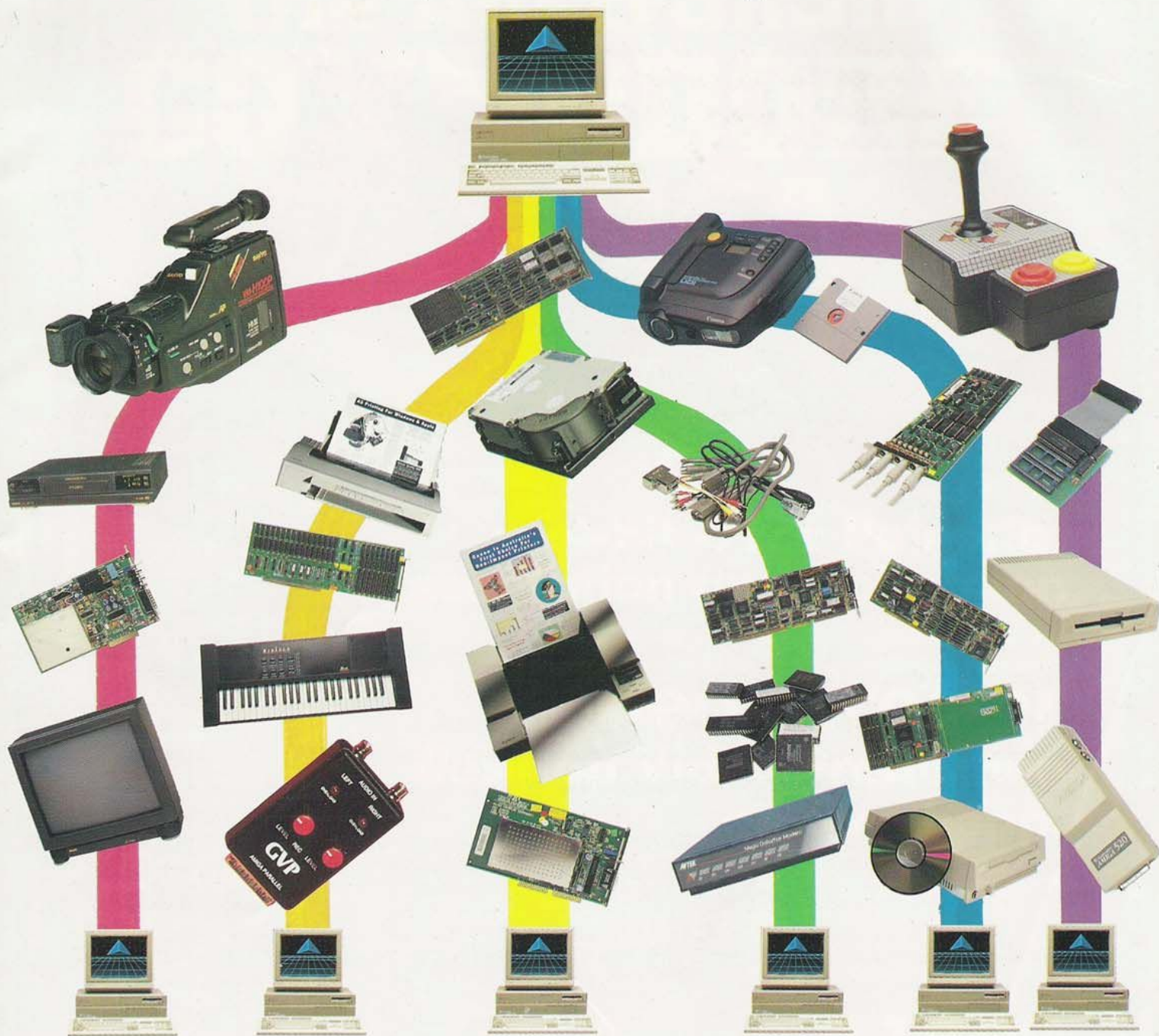
minute you're playing in dead silence, then you enter a pub and a groovy tune starts playing.

Where the game does succeed is in the numerous sources of information made available to you. You can log onto the computer to get some character analyses, check your notice board and mail holder for important messages, pay a visit to your contact in the pub - he will always have some new information for you, go out on a date with your girlfriend and discuss the case (great date, eh?), visit mum at home and comfort her, or pay dad a visit in jail and get more information out of him (Why did you do it, dad?). Dial the various numbers in your diary, or just order a pizza! There are many hours' work involved just following up the initial information presented to you.

Obviously this game wasn't developed on a huge budget, though it should provide any potential sleuth with a reasonable challenge. As far as excitement goes, there isn't any. Mind you, the story in the manual is pretty good ... A good looking girl has just knocked on your door ... "Don't I know you?" I asked, stepping aside to let her into the hall. "I'm Gloria, your father's new secretary. You came to the office a couple of months ago." Even nervous and upset, she had a voice that you could pour onto waffles and eat for breakfast ...



Evolution of a species



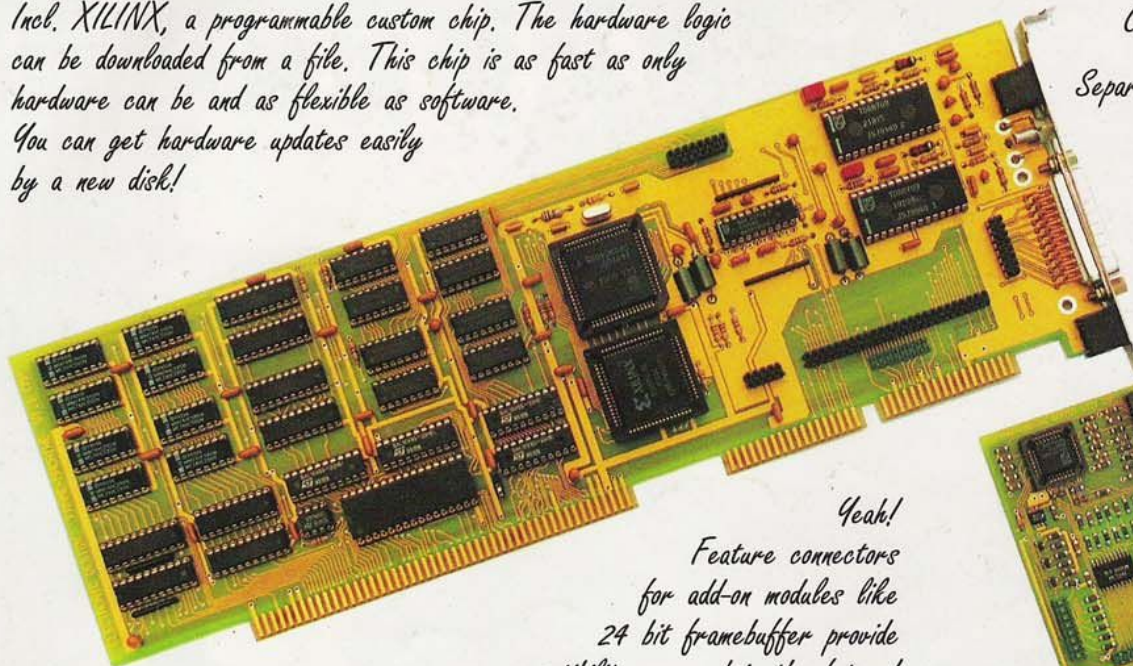
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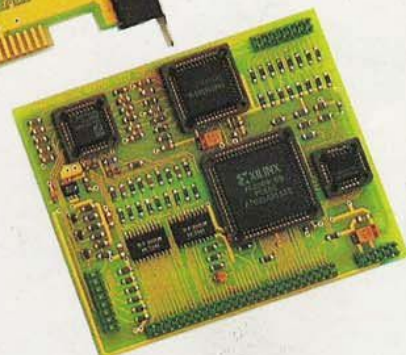
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